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ARTICLE VI.

CAMP TYPHOID FEVER.

BY WM. S. EDGAR, Surgeon 32d Regt. Ill. Vols.

Having enjoyed some opportunities for witnessing the ravages of this form of continued fever, as it exists in the central armies of the United States, I propose briefly to record some of my observations and conclusions concerning the primary causes and pathology; also, the complications and after pathology as determined by *post mortem* examinations.

Typhoid, like other fevers, is ushered in with a chill, but often so slight as to have escaped the particular notice of the patient, unless his attention be called to it, when he may say he has been chilly repeatedly the past day or two. I observe nothing peculiar in these chills or rigors diagnostic of typhoid.

These cases occurring in camp, are first noticed as being dull of perception, lying about, averse to exercise, hardly know what to complain of, but indicate debility. When closely questioned, they often say they "are sick all over;" appetite impaired, headache, confusion of mind, apparently sleeping much, but not refreshed, disturbed dreaming, or wakeful, with apprehension of some impending calamity.

During the exacerbation of fever, a burning heat of the skin

is noticed; when bathed with perspiration the heat is not reduced, as is usual with other fevers.

Thus far tne patient is reported ailing, unfit for duty, perhaps for three days, when he is admitted to hospital, and the attending surgeon, with the condition above described before him, proceeds to investigate the history of the case, to complete or establish the diagnosis if possible. The patient may be a stalwart lumberman from the forests of Michigan, Wisconsin, or Minnesota, whose brain never reeled nor muscles relaxed before with fever. He has but recently exchanged the pleasures and hilarity of the social board and family hearthstone, the associations of his childhood and youth, for the company of men, and mostly, if not entirely, strangers.

The rifle is placed in his hands, and the stern reality of exposure to wounds and death is upon him for the first time, (for the greatest prevalence of this fever is soon after the mustering in of raw troops,) I say the good cheer of the home table has suddenly been exchanged for the rough fare and associates of the camp. The joys and hilarity of the evening village party, or family fireside, is exchanged for the solitary tramp of the picket guard, far from home and friends; and we notice that with the less intelligent—those who read and write least—these moral agencies are most powerful.

I will call attention in this connection to the unprecedented mortality in some of the recently recruited black regiments, reaching, in some instances, one hundred a month, the majority of this disease occurring in their native climate, and while better fed and clothed (indeed their clothing has been too heavy) than their previous custom; their accustomed hilarity they miss. The duties and perils of their new life have engrossed their attention and depressed their spirits. Separated from their families, sweet-hearts, and homes, the merry song and exciting dance, the banjo and bones, that rang through the spacious cotton gin or sugar mill, no more impart that healthful and vitalizing activity to every function, particularly the brain, so indispensable to perfect digestion.

Instead, the deadly rifle and sabre are placed in their hands,

constantly reminding them of the personal danger of their new employment, thereby depressing their spirits, and imparting a grave, thoughtful deportment previously unknown to them.

Or our patient may have rank, and more responsible duties, and the nerve power may have become exhausted by long-continued, anxious labor, night and day, until his strength gives way, and he is compelled to seek recuperation through a long and weary process of repair. His sleep is but little, which does not refresh, as it is broken and disturbed with fever. I have a case in mind of a surgeon who had the charge of many wounded at the battle of Shiloh, and passed many days without sleep or rest, until he was relieved by the distribution of his patients in general hospitals, when he immediately sank down with a slow typhoid fever, and inability to sleep, from which he did not recover for many months.

It matters little from what cause the nerve power fails, whether by exhausting labor and watching, or depressed by protracted grief, or fear, whether by moral or physical causes, if the nerve power fails, the functions one after another fail.

True, we may meet with cases of typhoid fever without these concomitants, and with altogether dif rent history; still, that some subtle agencies have primarily disturbed the cerebral function, we think will be manifest on careful inquiry.

Having sufficiently noted, as we trust, the evidence of the primary disturbance of the nerve power in this fever, I propose to consider some of the immediate consequences and complications, among which, to be first noticed, is the function of digestion, not so much in the stomach as in the duodenum, as the food taken into the stomach is broken down, rendered liquid by the gastric juice, and passes to the next organ, where the secretions failing, or being unhealthy, the farther elaboration of nutrient elements fails, and the chylopoietic vessels are not supplied. Instead thereof, chemical agencies supervene, forming acrid irritating excrementitious matters, which, exciting increased peristaltic actions, are hurried forward through the small intestines to tarry longer in the pouches of the colon, exciting congestion, and finally inflammation and ulceration of bowel, if the evil be not timely arrested.

The waste of the circulation being imperfectly replenished by the food taken, together with the effete and irritating matters retained in the circulation from the general failure of the glands to eliminate the same, abundantly explains the excitement of the heart and arteries, and the creation of the continued fever, as also its persistent character.

From this period we may have gradual decay; one function after another fails. Those of the skin, kidneys, and liver claim our early and special attention. As the case progresses to the condition just described, it is common to find rose-colored pimples, first on the forehead and breast, gradually extending over the body, (but this symptom is not constant, as some have erroneously claimed,) more or less incoherent talking, delirium, and the irritation already referred to in the bowels. The last is indicated by the dry, brown, cracked tongue, with red edges, offensive, watery ejections from the bowels, tenderness on firm pressure in various parts of the abdomen, which often becomes tympanitic.

The fever, if influenced by malarial complication, will observe some variation, exhibiting on alternate days exacerbations and remissions.

Typhoid pneumonia, commonly called winter fever, in the West and South, is not included in this description.

To recapitulate, the symptoms on which our diagnosis of camp typhoid fever is formed, are first the partial failure of the cerebral function, and as a consequence, the subsequent failure, in some degree, of all the functions of the body, the particular symptoms of which have already been mentioned.

To meet the first indication we would use early and persistently a nerve stimulant. Arnica, sulph. ether, (or Hoffman's anodyne, which is preferable,) from four to six stimulating doses every twenty-four hours. To promote digestion we would restrict the diet to the simplest, most nutritious, and easily assimilated articles, in limited quantities, beef tea, arrow-root, tapioca, and the like.

To aid the skin and kidneys to resume their functions, use warm baths, with the occasional internal use of diaphoretics and

diuretics; to promote the secretions of the liver and glands generally, a dose or two of calomel, mercury and chalk, or blue-mass, after the warm bath, or washing the body in warm water by sections (if the bath cannot be had); but the indiscriminate use of mercurials to cure this fever is unwise and even pernicious. If we have reason to apprehend complication from malaria (as is often the case) we give from three to four grains of quinine every two or three hours, until fifteen or twenty grains have been administered, during the remission, if any is observable, repeating the quinine in five or six days if the fever continues.

To obviate serious disease of the mucous membrane of the bowels, we resort early to the use of mild laxatives, repeated during the progress of the disease, and to the same end, and to blunt the acrimony of the secretions allow free use of mucilaginous drinks, which also comforts the patient by allaying his thirst. If the bowel affection becoms a serious complication, as too often occurs, notwithstanding the most judicious management of the case, and inflammatlon or ulceration is threatened; to relieve the tympanotic distension, we would cleanse the lower bowels first, with warm water injections, and after placing our patient on his right side, introduce a well oiled elastic bougie to the descending colon, whereby large quantities of flatus may be evacuated, greatly to the relief of the patient. It is usual to fail in this simple operation from neglect to place the patient on his right side, as it is obvious that if the patient is on his left side when the instrument is passed, the gas will occupy the highest point of the colon, viz: the ascending colon which may not be reached by the instrument, hence the failure. But if the patient be on his right side, the gas will ascend to the descending portion of the colon which brings it within reach.

This farther suggests the importance of the patient's position when local applications are made to the mucous membrane of the lower bowels, and which I apprehend receives but little attention from many practitioners. For instance, if a clyster is designed to evacuate the bowels, after it is administered, the patient should always be directed to lie on his left side which

position throws forward the contents of the ascending and transverse colon, thus favoring the evacuation, but if it is desirable that the material thrown into the bowel should remain as long as possible, if the patient be placed on his right side the hydrostatic pressure of the transverse colon is removed, and retention favored. An anodyne administered in this way at night, often assists materially in procuring rest. Astringents, vegetable or mineral, to check the diarrhœa are usually pernicious.

The patient's mind should be prepared from the outset for a protracted illness, yet the most hopeful prognosis should be persistently adhered to from the beginning to the end, both by medical advisers and attendants, which is of the utmost importance. No doubt or question of the final recovery should be intimated.

The ulceration of the mucous membrane of the bowels, and disease of Peyers' glands, so common where the case runs to a fatal termination, we regard as purely incidental, originating in the long continued presence of acrid irritating secretions and combinations in the bowels, rather than idiopathic.

I have endeavored in this brief sketch to show the importance of introducing into our camps, as prophylactics, *exhilarating mental influences*, more hilarity, fun, and amusements of whatever kind may be found practicable, such as games, music, dancing, horse-racing, &c.

It has already been stated that those who are not sufficiently intelligent to read and write, suffer most from this disease. The fact itself sufficiently intimates that such as are able to profit by it should be provided with cheerful and entertaining reading, and as far as possible the discipline of the camp should cultivate the intelligence of the soldier and cheerful employment of the mind.

If I have contributed a single suggestion of value, either for the prevention or in the treatment of this most prevalent and destructive disease, I will be pardoned by my professional brethren for this intrusion.

ARTICLE VII.

BRIGHT'S DISEASE OF THE KIDNEY.

BY JOHN BARTLETT, M.D., of Chicago.

Read before the Chicago Medical Society.

Mrs. C. E., aged thirty-one years, of good constitution and of temperate habits, fell under my observation on the 24th of March last.

The following is her history: Thirteen years since, after the birth of her first child, she had a severe attack of dyspepsia, lasting for three years, and reducing her much in strength and flesh. She suffered also from leucorrhœa. As a remedy for these difficulties, soda, and the muriated tincture of iron were taken habitually. At the expiration of three years, her health was nearly or quite restored.

Five years since, she gave birth to a child. In this labor, her attendant having given assurance that delivery should be accomplished by a certain hour, gave her some medicine "to make his words good." The labor was actively stimulated, and the child violently extruded. Since then, she has been troubled with uterine disease, which was aggravated two years since, by a miscarriage, and again by an abortion in October last. For some time past, there has been a recurrence of her dyspeptic symptoms, the most prominent being acidity of the stomach and meteorism.

The patient was of large frame, and somewhat corpulent. She was four months advanced in pregnancy. On the 10th of March last, while lifting a weight, she felt something tear within her. Flooding and fever followed, on the 22d and 23d, the hæmorrhage was excessive; on the 27th, abortion occurred, the functions of the uterus being perfectly performed.

This fever, thus set-up, apparently by accident, and terminating in death in sixty-three days, it is my object to describe. The Society will bear in mind that my observation of the case dates two weeks after its commencement; and it may here be mentioned that the notes from which this report is made were

taken as an aid in the treatment only: they are consequently incomplete.

The symptoms may be considered in three stages. The first occupying twenty-five days; the second thirteen days, and the third twenty-five days. These were severally stages of progression, of mitigation, and of aggravation. The most prominent symptom, throughout, was fever. The febrile condition determined the state of the patient, and there was a general coincidence between it and the other symptoms in mildness or severity. It began with daily flushes of heat; these increasing in severity, became distinct paroxysms of rigor and fever. On the 12th day the fever was constant, though slight. There was a sensation of chilliness in the morning, and an evening exacerbation. In the progress of the disease the rigors were for a time lost sight of: the fever was continued. By the twenty-fifth day, the pulse, always frequent, had become rapid and feeble. The skin was invariably warm and dry, till the coming on of exhaustion at the close of the first stage, when the hands and face were cool. The tongue, at first coated with a white fur, soon became dry and brown; the teeth being covered with sordes. Wakefulness in the beginning, gave place to nervousness, and this to hallucination and delirium; finally there was an approach to stupor. The face had become pale, sallow, and death-like. The bowels were torpid, yielding small, dark-colored and offensive discharges, when stimulated by enemata. There was some tympanites. At the close of this stage of progression there occurred a new difficulty, which, in the end, proved most distressing and dangerous. The patient was seized with a violent attack of dyspnœa. There was an accumulation of a quantity of tenacious mucus in the air passages, producing great embarrassment of respiration, and causing a well-nigh fatal exhaustion. The dangerous depression resulting from this attack being recovered from, mitigation of the symptoms followed, the fever gave evidence of gradual abatement. The pulse lost its great frequency, and increased in force and volume. The skin losing much of its heat, was occasionally moist and natural. The tongue cleared completely; the sleep was

satisfactory, and listlessness gave place to sprightliness. The expression was excellent; the bowels became less torpid and their secretions natural. Appetite and strength returned in good degree. For discouragement, there remained accelerated respiration, and occasional attacks of dyspnœa; but these were not frequent, and the respiratory movements daily approached the proper mean.

At the end of seventeen days, improvement ceased. Every evening brought a chill, with its accompanying aggravation of fever. The pulse again became frequent and feeble. The skin, hot and dry during the fever, was at other times unnaturally moist. There was no natural sleep; there was nervousness and occasional headache, delirium, and general subsultus tendinum. The difficulty of breathing was constant, and the paroxysms of dyspnœa frequent. The appetite and strength failed. Death occurred by asthenia.

Having thus described the symptoms generally and collectively, it will be profitable, in order to the full understanding of the significance of each, that a review of the more important should be taken. Here, also, will be noticed certain important signs of disease, not mentioned in the general description. To such, in particular, I invite the attention of the Society.

The first peculiarity to be noticed is the frequency and want of equality of the pulse. In the first twelve days of my observation, twenty records, taken at all hours, give the average number of pulsations in the minute as 142. In the stage of mitigation, the average number was 126; and in the last period the average was 138. The mean of seventy-five observations throughout the disease gives a pulse of 134. The want of equality in the pulse was not less striking than its great frequency. In one instance, the pulsations at 4, A.M. were 113; at 6, A.M., 176; at 8, A.M., 128. Thus a variation of from twenty to sixty beats to the minute, in a few hours, was not uncommon, and the variation as to volume, force, and quickness was almost as remarkable as the irregularity in the number of beats.

An inquiry as to what hour in the twenty-four, the pulse was the more or less frequent, gives this result:

For the morning, -	124	For the evening, -	139
For noon, - -	136	For midnight, -	136

The relation of the movements of the heart to those of the chest was quite constant throughout. Thus, the extreme ratio of the number of pulsations to the number of respiratory acts, in the minute, was, for the minimum, as twenty-two to ten; for the maximum, as forty-five to ten. This coincidence may be further established thus. The average number of respiratory movements was:

For the morning, -	36	For the evening, -	47
For noon, - -	44	For midnight, - -	42

It will be observed that the movements of the chest, like those of the heart, were lowest in the morning, gradually increased at noon, and reached a maximum in the evening; falling toward midnight to the same number (nearly) as at midday.

Cerebro-spinal symptoms came on early. Dilitation of the pupils existed throughout the third week of disease; it was not again noticed until two days before death. No connection between this and any other condition could be traced. Next followed hallucinations, hilarious, and busy delirium, listlessness, stupor, and indifference. The dyspnœa was in part a nervous phenomenon. Under this head may be mentioned a general tremor or agitation of the body, occurring in the last week of life. This vibration was especially striking in parts moved in respiration. Some days before death, she had, both waking and sleeping, spasmodic startings of parts or of the whole of the body, as if from an electrical shock.

The bowels were usually costive, though diarrhœa was easily induced. In general, when one discharge occurred, several followed; and they were frequently, whether the quantity was small or large, consistent or otherwise, followed by great exhaustion. The discharges were usually semi-consistent, sometimes entirely so, sometimes watery. There was occasional colic, and meteorism was almost constant in the last half of the disease. No other connection between the state of the bowels and other symptoms was noticed than this; exhaustion after an operation, lead sometimes to a paroxysm of dyspnœa. On the

contrary, in the latter stages, the embarrassment of the lungs was relieved by an evacuation of the bowels.

Acceleration of the respiration was noticed as early as the twenty-fifth day of illness. Three days after this, the first paroxysm of difficulty of breathing took place. These attacks of dyspnœa were frequently simply a consequence of an accumulation of mucus in the air tubes; the excitor or motor power being deficient from exhaustion, from sleep, or from stupor. At other times they seemed dependent upon nervous influence. They occurred at all hours, most commonly at night, sometimes with distinct periodicity. During the paroxysms, tenacious, glairy mucus was expectorated. The average number of respiratory movements per minute during these attacks was fifty-two. They varied much in severity, occasionally being so slight that a change of position, or a cough, would bring relief. At other times they lasted for hours, threatening the life of the patient. Toward the termination of the case, the difficulty of breathing was constant. For two days before death, there was what might be called the respiration of the dying, The average number of respiratory acts per minute, from fifty observations taken in the last forty days of life was forty.

Notwithstanding this long-continued difficulty of breathing, no physical sign of disease in the chest was discovered until the sixth week, when dulness on percussion, and fine crepitation in the right infra scapula and dorsal regions indicated engorgement of corresponding portions of the lung.

On the forty-third day œdema of the hands and face first attracted attention. But, upon reflection, it was evident that this symptom had existed for some time unnoticed. For a week or more, extraordinary changes had been marked in the expression. Pallor and thinness of the countenance would offer at one visit a bad augury of the case. The next day dropsy would have filled out the face, and fever enlivened it, so as to give to the patient the appearance of health. These changes were mostly due to the œdematous condition. The anasarca was slight, and not constant. It was confined almost entirely to the face and extremities. It came and went without regu-

larity, and without appreciable change in the general state of the patient.

In a retrospective glance at this case, several symptoms are noted which should have led to an earlier examination of the urine. Inquiry elicited these facts, having reference to the kidneys: Pain of the back was complained of once, on the twenty-fourth day. Nine months previously, the patient had received an injury. In descending the stairs she fell, striking the loins against a step with great violence. The effects of this fall were traced up to the time of this sickness in a sense of weakness in the lumbar region, necessitating the use of strengthening plasters.

Examinations of the urine furnished the following facts: Quantity in twenty-four hours, from twenty-seven to forty-one ounces. When the quantity was twenty-seven ounces, the specific gravity was 1008. It was one eighth albuminous. It was smoky, and frothed upon agitation. Epithelium scales desquamative, waxy, and fibrinous casts were found in abundance.

Throughout the latter half of her sickness, the patient frequently expressed herself as free from all suffering, perfectly comfortable.

Diagnosis and Treatment.—For five years past, the patient had labored under uterine troubles. These difficulties had been aggravated by the occurrence of two abortions in the last two years. Injury had just produced a third. The case was accordingly judged to be one of irritative fever with a typhoid tendency; and upon this theory the earlier treatment was based. It was not till the full examination of the urine pointed distinctly to Bright's disease, that active antagonism of the symptoms was given over.

The treatment is of little interest except so far as it teaches what was beneficial or useless in relieving symptoms. It may furnish some addition to, or corroboration of, what is known of the *juvantia* and *lædentia* in similar cases.

Milk punch and the essence of beef were the chief stimulants used. At one time, the extreme prostration demanded the ex-

hibition of eight ounces of brandy in twenty-four hours. Various narcotics were employed to procure sleep, to relieve restlessness, or to control dyspnœa. Opium was given in several forms, and always with the effect of increasing watchfulness, or producing delirium, with this exception. In the last stages—to induce sleep, and relieve pleuretic pain, one-fourth of a grain of morphine was applied to the denuded skin. In half an hour sound sleep was produced, with a fall in the number of respirations from forty-two to twenty-five. Hyoscyamus, castor, and valerian had no effect. Asafœtida did not disappoint entirely; but the cannabis sativa answered an excellent purpose. It quieted restlessness, produced sleep, and sometimes prevented the occurrence of dyspnœa, or rendered an attack milder.

Antiperiodics, especially quinine, would sometimes prevent the paroxysms of fever, for one, or two days.

Strychnine was once given, in a very small quantity, to improve the tone of the stomach and bladder. In the twelve hours succeeding this dose there was incessant laughter and singing, in the sleep.

To relieve the head and lungs, in the latter stages, benzoic acid, acetate of potash, and tannin were tried without appreciable effect. On several occasions the carbonate of ammonia was given without any change in the symptoms.

To try the theory Frierich, as to the conversion of uruea into ammonia, in the blood, the breath was twice tested during a paroxysm of dyspnœa. No ammonia was detected.

A *post mortem* examination was made, but under the most disadvantageous restrictions as to time. Dr. WANZER and myself were unable to do more than examine the kidneys. They were of the ordinary size and shape, but softer than natural. Their color was a light purple, and their surface, as seen through the capsule very granular. Their weight was four and one-half ounces, and their specific gravity .988. It is much to be regretted that decomposition set in before specimens of these organs could be submitted to the microscope. Fifty hours after death, their structure was disorganized.

ARTICLE VIII.

NITROUS OXIDE, OR "LAUGHING GAS," AS AN ANÆSTHETIC.

By E. ANDREWS, M.D., Professor of Surgery in Chicago Medical College.

Considerable stir has been made among the dentists of late by the introduction of a new anæsthetic, which is nothing else than the old-fashioned laughing gas of the chemists. As is usual in such matters, the quacks of tooth-pulling, make the most noise about it, while the respectable men use it with much less enthusiasm. Perhaps the most amusing thing about it is that a large portion of the second-rate dentists have been victimized by the introducers of the gas, and induced to pay fifty dollars apiece for the "*secret*," and for a small package of Nitrate of Ammonia, with which to commence operations. In some handbills distributed around the city it is called by the sounding title of Muhrite of Oxygen, and is extolled as being entirely free from the dangers of chloroform. The gas thus heralded, is simply the old-fashioned protoxide of nitrogen, otherwise called nitrous oxide, and laughing gas. The term "Muhrite of Oxygen," is a sheer fabrication, there being no such name or compound in chemistry. The article is prepared by heating nitrate of ammonia in a glass retort. The salt is decomposed by the heat, and converted into nitrous oxide and water. It is passed through a water bath to free it from any impurities that may come over with it, and then collected in a large gasometer. For the purpose of inhalation, it is drawn off into india rubber gas bags, holding three to five gallons each. Although, as above mentioned, the dental quacks make the most noise about it, still the article is more or less used by all the principal dentists of the city. As everything which possesses claims as an anæsthetic is of importance to the surgeon, I thought it my duty to examine into its qualities, and am indebted to Drs. J. C. FULLER, J. C. DEAN, and W. W. ALLPORT, dentists in this city, for special facilities in pursuing my inquiries. To be-

gin with, I took a moderate portion of the gas myself, in order to judge of the sensations produced by it. The first effect was a sense of buzzing and vibration over the whole system, precisely like that produced by chloroform, which increased rapidly to such an uproarous degree, that the senses of hearing, feeling, and seeing, seemed to be rapidly becoming lost and overwhelmed in a tremendous roaring, jaring, and dizziness. At this point I was aware that I was drawing in and throwing out my breath in a furious manner, without any reason, and without conscious effort. By pinching the flesh of my hand I perceived that I had still, to some degree, the power of feeling pain, though all the senses were blunted. As I did not wish to proceed to entire unconsciousness, I then withdrew the tube from my mouth, having been inhaling about two minutes. The effect subsided in about two minutes more, the return to full consciousness being accompanied by a free perspiration and a mild exilaration of the feelings. The pulse at the beginning was 84 per minute, and in the height of the effect about one hundred. I then took a larger quantity and administered it to a patient to pretty full anæsthesia. The pulse at the beginning of the experiment was 85 per minute. In abou. a minute it had risen to 100, with diminished force, and a free perspiration broke out on the forehead. The patient now began to look blue in the lips, showing obvious marks of incipient asphyxia. At the same time he began to make his inspirations and expirations in a furious and noisy manner. The pulse by another minute had increased to 120 per minute, and was feebler. The perspiration was more copious, and the blue asphyxiated appearance of the countenance was so decided that I judged it prudent to withdraw the gas, and terminate the experiment. The anæsthesia was perfect, the patient not shrinking from the severest pinches, and not remembering any pain from them afterwards. The anæsthesia continued about 45 seconds, when the patient began to laugh violently, and finally came to his consciousness with an exulting yell, and a loud smack of his fists. Ordinarily the patient makes but little trouble by any boisterousness, and seldom feels any depression, nausea, or other trouble afterwards.

A man named COLTON, an itinerant lecturer on Chemistry, who has traversed the country for many years in that capacity, claims the credit of having demonstrated the anæsthetic power of this agent to the world, while he assigns the original discovery of its effects to a Dr. WELLS. COLTON claims to have given it to patients for the extraction of over eight thousand teeth, and without injury in any instance. There are, however, cases on record of headache and delirium following its use, the delirium in a few cases lasting months, and it is asserted that deaths have resulted from it, but I have not been able to obtain decisive authority for the statement, except in one instance. Animals, however, have been killed by it. So far as we can judge at present, the use of nitrous oxide would seem, like all other anæsthetics, to be accompanied by a slight but positive danger. The blueness of the lips indicating incipient asphyxia, is present in every instance, and it is not probable that such a state can be induced upon all sorts of patients, and in all pathological conditions with entire safety, still I know of no reason at present for supposing that it is any more dangerous than chloroform, and it is certainly much more agreeable to take.

For the purposes of general surgery, the nitrous oxide will not be available. The chief difficulty is the extremely transitory nature of its effects. Having only from 80 to 90 seconds of insensibility in which to operate, the surgeon can seldom use the gas, for if he should continue the inhalation without interruption for many minutes, death would probably ensue from asphyxia, as the nitrous oxide seems to have no power to arterialize the blood. Still in operations which require only a moment for their performance, such as lancing felons and abscesses, it might be easily used. In some instances, also, it could be given repeatedly at one sitting, the patient being allowed to recover from one inhalation before proceeding to another, and the operation completed by successive stages.

It has both conveniences and inconveniences connected with it. Of the former, is the fact that scarcely any time is required to produce its full effects, which is an important item with the surgeon, and also that there is no nausea and vomiting after-

wards, which is a comfort to the patient. On the other hand, it is a difficult thing to preserve and carry, and the practitioner going to see a patient with it, must take with him a five gallon gas bag full, which he can by no means put into a corner of his pocket.

It is probable, therefore, that nitrous oxide will be permanently established as a dental anæsthetic, but will only be occasionally used in general surgery.

Selections.

NOTICE OF THE SPOTTED FEVER,

AS IT OCCURRED AT NEWPORT, RHODE ISLAND, IN THE MONTHS OF JAN., FEB., MARCH, AND APRIL, 1863, WITH A HISTORY OF THE DISEASE, ITS SYMPTOMS, DIAGNOSIS, AND TREATMENT.

By PHILIP S. WALES, M.D., Surgeon U.S.N.

During the past winter, several sections of our country have been visited by a disease of a febrile character, very little known and marked by peculiarities clearly distinguishing it from those fevers ordinarily met with. To some of the localities it appears to be an entire stranger, as in Philadelphia, for instance, where Dr. Gerhard assures us it never was witnessed before. The two epidemics of negro fever occurring in that city, the first in 1820-21, the second in 1848, were entirely different in their course and symptoms from the one under consideration, yet recognizing some affinity with it in being blood diseases. In both these epidemics the disease was almost always confined to the negro population, and thus in one prominent character very unlike the spotted fever which recognizes no color, class, age, or condition in life.*

* In December, 1812, a malignant typhus broke out at Camden, opposite Philadelphia. The disease appeared to possess characters different from ordinary typhus, and was extremely fatal under the system of treatment then pursued—evacuant.

When Dr. E. Strong's work on Spotted Fever appeared, the physicians were impressed with the idea that their malignant typhus was either a variety of, or a close analogue of, the fever described in that book. They thenceforth adopted the treatment he recommended—stimulants—with success.

In February, 1813, the same disease appeared in Philadelphia, first in the

Indeed, we might say that this fever is almost exclusively peculiar to New England, so rarely has it been seen in recent times outside of those States. From what I learn from the physicians of Newport, it would seem that they have known the disease to have prevailed latterly along with scarlatina and typhoid fevers in the towns and counties adjacent. Very likely this is so, and many cases may have been taken for typhoid fever, pneumonia, &c., and reported as such, or again, as anomalous cases of fever, as in the instance of Dr. D. Crary, of Hartford (see *The American Journal of the Medical Sciences* for January, 1863, p. 146). An old practitioner from Maryland recognized the disease at once, in the first case that happened at Newport.

The army surgeons state that there were cases of this disorder during the winter, at Portsmouth, Va., Annapolis, and Washington, among the U.S. troops. A limited but fatal epidemic of the same occurred in Centre and York Counties, Pa., in the month of March. Between the months of February and April, a number of cases showed themselves in Philadelphia, and its neighboring towns of Manayunk, Norristown, Frankford, Chester, and the Falls of the Schuylkill. At Newport, Rhode Island, seven cases occurred among the midshipmen billeted on the school ship in the harbor, and on diligent inquiry, Assistant-Surgeon Rickets could learn of no well authenticated cases in the town. A quack asserted that he had had two under his charge; both died.

These are, so far as I can learn, the limits of the disease as it prevailed last winter, though I am inclined to believe that many cases presented themselves both in the towns and counties of the New England States, New York, and Pennsylvania.

It is stated that the spotted fever first appeared in this country at Medfield, Mass., in 1806, and soon after in Connecticut. In 1810, it prevailed in the county of Worcester, Mass., with unexampled mortality, baffling the best endeavors of the physicians. In the autumn of 1812, it appeared among the United States troops at Greenbush, and other military stations, making

Northern Liberties, and spread in various directions over the city. At the same time the fever was prevalent in Frankford, Abington, Byberry, and in Philadelphia County, in Bucks County, and various parts of New Jersey. The disease was complicated with thoracic troubles, and was called "the epidemic pneumonia" by the practitioners in the various counties of the latter State. Several army surgeons, then in the neighborhood of the disease, recognized it as the spotted fever of New England. See their letters in the *Med. and Philosophical Register*, Vol. III, page 491.

In the *Eclectic Repertory*, Vol. III., page 542, there is an allusion to the disease as it occurred in Philadelphia and Camden, in 1812-13.

great havoc among them. So alarming, indeed, had the disease become that the counsellors of the Massachusetts Medical Society appointed a committee consisting of Drs. Thomas Welsh, James Jackson, and John C. Warren, to make all possible inquiry and investigation into its history and treatment. Their able, elaborate, and judicious report occupies a place in that Society's reports (Vol. I.)

During the winter and spring of 1813, it was prevalent and extremely fatal among the inhabitants of Vermont, in the upper part of the State of New York, in several inland towns of Massachusetts and Maine, assuming a number of treacherous shapes, and extremely mortal. Boston suffered at the same time, though in this city the disease affected principally the new levies of the United States troops.

The frequent appearance and fatal character of this disease drew forth several ably written papers on the subject. See report above mentioned, also a paper by Dr. Thomas Paige, of Hallowell; Treatise on Typhus Syncopalis (spotted fever), by Thomas Miner, M.D.; Gallup on Epidemics; Thacher's *Modern Practice of Medicine*, Boston, 1826; Thomas' *Practice of Medicine*, by Prof. D. Hosack, N.Y.; Dr. E. Strong on Spotted Fever, Mass. Med. Society Communications, Vol. II., &c.

From these various works it would appear that the disease was well understood in all its protean forms, and remarkable success followed its treatment.

Dr. Paige, in the paper above mentioned, describes four varieties of the disease. 1st. That which principally attacks the brain. 2d. The spurious *peripneumonic* form characterized by pain in chest and oppression of breathing, with cough and expectoration of viscid, dirty-brown matter, and in some of the most malignant cases blood completely dissolved. 3d. Where the disease was directed to the stomach and bowels, producing cholera morbus or colic. 4th. When the extremities powerfully suffered with coldness, numbness, and pains. In all these different varieties one common type was observed as their basis, though veiled by the various modifications; and the same treatment was mainly successful.

So that it appears these local phenomena often draw away the attention of the physician from the main disease, spotted fever, as happened in Case VII., where the pneumonic symptoms were the most prominent, and this mistake was particularly apt to happen at this early period, the practitioners not being in possession of our present precious method of physical diagnosis; thus, what wonder to see the disease described under the vari-

ous titles of peripneumonia typhoides, malignant pleurisy, &c.? So that, really, it was spotted fever that was alluded to by Dr. Hugh Williamson, as occurring in North Carolina, in 1792 (see *Medical Repository*, first series, Vol. II.); and the same is true of the epidemic which prevailed in 1749, in Rhode Island, and reported by Dr. John Bard, in *Med. and Philosoph. Register*, Vol. I. This is perhaps the earliest account we have of the spotted fever, as it prevailed in the United States. There is, indeed, no reasonable doubt but that the typhoid pneumonia, which has prevailed from the earliest period of our history at various times, and in various sections, is identical with spotted fever, for says Dr. Thacher, op. cit.: "According to its various symptoms and forms, this pestilence has been termed bilious peripneumonia or typhoid pneumonia. In some of its appearances and forms it may be identified with the petechial fever above mentioned, but if it be a distinct disease, there is an obvious and close analogy in their nature and character." Again, Dr. Hosack, in the Appendix to Thomas' *Practice of Medicine*, says: "This disease (peripneumonia typhoides) is not a 'new calamity,' an 'unknown epidemic,' as it has been represented by some writers; on the contrary it has been well described by Sauvages (see *Nosologia Methodica*, Vol. I.), Huxham, and others. The causes of the disease are no less compound than the disease itself. The local inflammatory affections are probably occasioned by the sensible changes in the atmosphere, while the typhoid character of the disease is derived from an epidemic constitution of the air, the same which has given rise to the typhus petechialis, or spotted fever, which has prevailed for some time past in our Northern and Eastern States, and which is doubtless a similar disease, with the exception that the present epidemic is implicated with symptoms of local inflammation of the chest, brain, or throat, &c., the effect of the present cold season of the year."

Dr. John Huxham described peripneumonia typhoides in the year 1759,* and Sydenham in 1680,† nearly two centuries ago; and the latter date is probably the earliest European account we have of spotted fever or peripneumonia typhoides, as it was then called.‡ Our medical fathers have given no description

* See Huxham's Works—De aire et morbis epidemicis.

† See Thomas Sydenham, M.D.—Opera omnia. Schedula monitoria de novæ febris ingressu, page 486; et Cap. v., page 550—De Febre stationaria ab anno 1685 ad 1690.

‡ Some writers have stated their belief that Cullen and Hoffman have also witnessed the disease, the former alluding to it as a synochal fever, and the latter as a catarrhal fever. Boerhaave and Lieutaud have imitated Sydenham in their allusions to the Febres Petechialis.

which to our apprehension embraces it, though we have no positive proof that it did not happen in the earliest times.

From all this, we conclude that spotted fever has prevailed at various times both in Europe and America, under titles expressive of some of its numerous local complications or forms, and thus giving rise to errors in the recognition of the nature of the various epidemics leading to the separation of diseases essentially the same, and ignoring the identity of the constitutional malady common to them all.

Symptoms.—The advent of spotted fever is marked in different cases by an exceeding variety of symptoms; scarce two cases resemble each other. I shall first give a resumé or enumeration of the morbid phenomena presented by the cases which were seen at Newport, and afterwards submit the cases themselves in detail.

Patients are sometimes suddenly arrested in their employment or pastime with intense headache and delirium; but more commonly the disease begins with shifting pains in the extremities and joints, headache often of the most atrocious character, nausea, or vomiting, along with a chill, which last, however, soon subsides, and the characteristic delirium and dulness set in. The delirium varies in intensity, occasionally furiously maniacal, generally moderate and quiet; there is extreme restlessness and jactitation. The sensibility of the whole surface is sometimes so unwontedly increased that the patient cannot even bear to have his hair touched. There is generally remarkable prostration of strength, and the limbs seem paralyzed; and are numb, and in some cases even insensible; there is deafness, dimness of sight, or even complete loss of vision. A few have convulsions and opisthotonos. The tongue is moist, yellowish, or brownish, never like the red, chapped, beef-like tongue of typhoid. The pulse small, even thready; sometimes extinct in very malignant cases, irregular, or intermitting; skin cold, and occasionally of a deadly pallor, and like polished marble; eyes glassy, and the pupils irregular in their action, sometimes contracted, then suddenly dilated. When reaction takes place, the pulse becomes fuller, skin warmer, and then there is marked uneasiness, the patient tossing himself in every direction with delirium; these symptoms remaining three days, the patient may be restored to convalescence, or the disease may advance into stupor, and come to a fatal termination.

The intestines appeared in general to be exempt from the effects of the disease, except in Case 6, where there was obstinate diarrhœa; the others occasionally required a mild aperient.

The bladder gives sometimes great annoyance, and hematuria is encountered from the very beginning. Profuse perspiration took place in one case, possessing a peculiar mawkish smell. One prominent symptom in Case 7 was inability to swallow.

One of the most peculiar marks of the disease is the *eruption*, which may occur in all stages of the disease, and in three of the cases below detailed it made its appearance on the first day, on the second day in three, on the tenth in one. The spots assumed the form of small, round ecchymoses of various sizes, from the head of a pin to the size of a split pea, of a light red color, like the bites of fleas. As the case advanced the splotches increased in size and coalesced, forming larger ones, or, properly patches, and in bad cases assuming a livid or purplish color. Again, the form was that of reddish streaks, as if caused by striking the parts with a bundle of twigs. In all cases the eruption was even with the skin, and appeared first upon the extremities, generally the upper, and then over the face and trunk. The duration of the spots varied, sometimes disappearing in two or three days, at others holding on for a couple of weeks, and then gradually disappearing as convalescence set in; or becoming larger and deeper on approaching death; and when this event happened, they resembled bruises, were very distinctly marked, and those previously quite light or almost imperceptible were readily observed. Most of the authorities upon this subject have generally stated that the eruption occurs throughout this disease in some of its varying degrees of size and colors, while on the other hand there is not wanting others who assert it to be only present in one out of six cases. All the Newport cases presented it, as will be seen below.

The passive hæmorrhagic character of the eruption was well understood by those who saw so much of it between the years 1810–18. Dr. Miner has observed that common typhus may prevail along with this disease in the same season, but its characteristic symptoms, eruption, &c., suffice to prevent errors in diagnosis.

The above resumé of symptoms was drawn from the seven cases which I now append, and the statements of those who hourly watched the patients from the beginning of their illness to its end. The cases are described in the order in which they broke out upon the school ship. I should here remark that there are two vessels lying in the harbor of Newport attached to the Naval Academy, and used as schools for practical instruction of the midshipmen. The students occupied them as quarters, and slept in hammocks, in the usual manner of sailors,

between decks. Those ships were always kept in the most excellent hygienic condition, as regards cleanliness and ventilation. For the latter, the Academy is much indebted to Surgeon James C. Palmer, U.S.N., whose suggestions as to the arrangement of steam pipes in the holds were carefully carried out by the superintendent of the institution with a most unlooked-for, but yet truly gratifying success, exceeding the most sanguine wishes of their originator. The spotted fever occurred upon only one of the vessels, and as soon as the patients showed symptoms of illness they were removed to the shore hospital, also under charge of Surgeon James C. Palmer, so that there was universal concurrence in the opinion that a residence upon shipboard had nothing to do with the origin or extension of the disease.

Case I. F. J. S., midshipman, aged 16, born in Virginia, was placed on the sick list January 15, 1863, complaining of sore throat with slight headache, for which some simple remedy was prescribed. Later in the day he complained of severe headache, fever, and delirium; there were jactitation and restlessness, tongue brownish. During the night these symptoms became more severe.

Jan. 16. This morning there is less headache, and though restless, there is no jactitation. An eruption has appeared on the legs and arms, in some places of the bright blush of erythema, in others livid and as large as a pea, the result of extravasation of the blood; there are also some dark colored pimples. Tongue brown, and the teeth covered with sordes. Yesterday evening his bowels were opened by a mild purgative, and a diaphretic mixture with an opiate given. This morning cold water was applied to the head, and weak toddy given to support the strength, the typhoid condition being decided, with passive extravasation in the cutis.

17*th.* Patient in a drowsy condition, but when addressed answers promptly, and seems in full possession of his intellect. The livid spots are disappearing from the arms, but diffused blotches remain upon his hips; no fever; tongue now white in its middle, and red at the tips and edges. Three small pustules made their appearance upon the right leg.

18*th.* The spots disappearing; delirium continues, though when aroused converses lucidly whilst engaged in conversation. No excitement of pulse; complains of much pain in the joints. Tongue covered with a thick coating of brownish fur, the teeth with sordes. Bowels moved by an aperient; apply a blister 3 inches by 6 inches to back of neck, ice to head. Brandy toddy

and milk. ℞.—Pulv. Doveri, gr. x.—hora somni. 7, P.M., tenderness in right iliac fossa with tympanitis.

19*th.* Slept some last night; delirium continues, and he passes his urine involuntarily. The *eruption* almost entirely disappeared, except the red patches upon his hips; pulse 145; extreme tenderness in epigastric and iliac regions; tympanitis. Teeth covered with sordes, and the tongue very brown and dry; debility extreme; face flushed; continued ice to head, sponge the surface with tepid water; dress blister with cerat. sabinæ; milk punch. ℞.—Ammoniæ carb. ℥j; mucilag. acaciæ, syr. tolutani, āā f℥ij.—M. A teaspoonful every hour.

20*th.* The fever continued to progress all day yesterday until his pulse beat 163 a minute; became comatose finally, and died at 11.20, P.M. No *post mortem* could be had in this case; anxious and distressed parents stood around the beds of most all of these young gentlemen from the beginning to the end of their disease, and took charge of their bodies when dead.

Case II. L., midshipman, aged 17; born in N.Y.; admitted to the list January 28th, complaining of pain in the limbs, calves of the legs. The lower limbs present an eruption like the bites of insects, and he is inclined to believe that the roaches, with which the ship ("Santee") swarms, have bitten him. The spots are of an ecchymotic character, even with the skin, and of various sizes and tints, from pale red to livid. There is no other evidence of disease whatever.

Jan. 29. Patient has still the same marks upon the legs, but nowhere else; back of the right hand swollen and slightly red; calf of the left leg swollen and painful, but not reddened. Pulse and tongue natural, in fact there is no evidence of disease anywhere, except the ecchymotic spots, which, under other circumstances than the present, would be taken for flea-bites, and not excite solicitude. Ordered, ℞.—Potass. chloras. ℥ss; acid hydro-chlor. f℥j; aqua dest. f℥viij.—M. A tablespoonful every third hour. Bowels have been freely opened. Milk toddy.

30*th.* Spots on the legs fading; the swelling of right hand, which occurred during the night, diminishing; tongue clean; pulse natural in frequency, but too compressible; tenderness to the least touch all over the body, but particularly in the epigastric region, around the umbilicus, and in the right iliac fossa. No cephalic symptoms whatever. Stomach excessively irritable, and vomiting of a purplish colored matter. The chlorinated solution was suspended, and tr. chloroform comp. f℥j after each emesis. ℞.—Quiniæ sulp. gr. ij; strychniæ gr. 1-60th—M. Every four hours. Blister 6 inches by 4 inches to epigastrium

continued sufficiently long to produce only a rubefacient action. P.M., was removed to the hospital in Newport, where immediate improvement set in. No vomiting from 1 to 10 P.M.

31*st*. Well-marked improvement; pulse natural, both in frequency, force, and volume; petechiæ scarcely perceptible; slight tenderness to touch over abdomen; countenance natural; sponge with tepid water dashed with the liquor sodæ chlor.; continue strychnia every three hours. ℞.—Ol. ricini f℥ij; ol. terebinthinæ gtt. x.—M. Take. Raw oysters, jelly, and milk punch—quiniæ sulph. gr. ij every sixth hour. P.M. Has passed the day favorably, except that he had an attack of vomiting, which was relieved by sinapism.

Feb. 1. Symptoms all favorable; bowels moved; pulse natural; tenderness scarcely perceptible; continue strychnia and quinia. ℞.—Cerii oxalatis gr. ij, every third hour.

3*d*. Is decidedly convalescent, requiring no more medicine; continue nourishment.

6*th*. Gaining strength; out of bed.

14*th*. Continued to improve up to the present, and was discharged cured.

Case III. W. K. B., midshipman, aged 17; born in Connecticut; was admitted to the sick list March 16th. Early in the morning small red spots, even with the surface, were observed upon the face and wrists, and were carefully watched; during the evening similar petechiæ were seen upon the lower extremities. Fever and delirium also set in at this time with extreme restlessness; was brought from the ship and lodged in the hospital. Ordered, ℞.—Quiniæ sulp. gr. xij; strychniæ gr. ss.—M. et ft. pill. No. iv, one every four hours.

March 17. Has been delirious and in constant motion all day. Cut off his hair and applied cold to head. Continued same medicine as yesterday without the quinia.

18*th*. The patient is rather more comfortable, and has lucid intervals in the delirium; pulse soft; tongue natural; passed his urine, and had a motion of the bowels. Continue strychnia; apply blister to neck; cold to head.

19*th*. Abatement of all the symptoms. The strychnia was omitted yesterday evening on account of the occurrence of cramps in the gastrocnemii muscles. Repeat the medicine twice to-day.

19*th*. Had a paroxysm of fever towards evening; delirium pretty constant, though he recognizes his friends and answers correctly when spoken to. Bowels not moved. ℞.—Ol. ricini f℥ij; coughs a good deal, and expectorates bloody mucus; fauces

have been inflamed from the beginning. No abnormal sounds can be heard in the chest. Puts his hand frequently upon the right hypochondriac region as if he suffered pain there. Apply blister 4 inches by 6 inches over this region until the skin is reddened. Milk punch during the night. Continue the strychnia. Pulv. Doveri gr. viij, hora somni.

20*th.* Passed last night comfortably, generally in a sound sleep. Pulse less frequent, softer and more feeble; cough much abated; tongue more moist. ℞.—Pulv. Doveri gr. v, ter in die, strychniæ gr. 1-32 t. d. Diet, oysters, milk punch, &c. Dress blister on the neck. P.M. The febrile exacerbation less violent than yesterday. Continue treatment throughout the night. Sponge surface with a mixture of equal parts of vinegar and water.

21*st.* Passed a good night; urinated twice, and is inclined to complain of trouble about the bladder. Suspend strychnia. R.—Spt. æth. nit. f℥j, ter in die. Dress blister. Milk punch, oysters, Scotch ale, and quiniæ sulph. gr. ij, ter in die.

22*d.* The symptoms more favorable. R.—Tr. ferri chlorid. gtt. viij, ter in die; other medicines suspended; continue supporting diet, and give at bedtime, R.—Morphia sulph. gr. ¼.

23*d.* Recovering slowly but yet decidedly. Continue iron and diet.

25*th.* Convalescent. Continue diet and the tincture chloride of iron.

27*th.* The patient had to-day an accession of fever, is quite restless, with occasional opisthotonic convulsions; suspend the iron and resume the strychnia in same dose three times a day. Milk toddy, broth. R.—Morph. sulph. gr. ¼, hora somni.

28*th.* The excitement of yesterday subsided. Nourishing diet; suspend medicine.

29*th.* Comfortable; diet same.

April 1. Again convalescent; diet as formerly.

3*d.* Condition good; has had profuse perspiration. R.—Acid. sulph. aromat. gtt. x, ter in die; ale, nutritious diet. P.M. Though doing so well up to this morning, he had been kept in a state of nervous agitation all day by the minute cares and extreme solicitation of his mother, who is sometimes unable to restrain her grief. His father arrived at 4 P.M., and though he did not at this time appear excited, in a few moments afterwards he fell in a paroxysm of convulsions, which continued, with short remissions till 9.30 P.M., and then yielded for about one hour. Mustard poultices were intermittently applied; cold to head, and his feet put into hot water; an enema of turpen-

tine was also given. The second paroxysm yielded at 2 A.M. next morning, and left him insensible. The pulse varied all night in force, frequency, and regularity. R.—Tr. valerian f℥ij, Brandy ℥ss during the day.

4*th*. Somewhat more tranquil up to noon, and partially restored to sensibility; pulse fuller. Repeated turpentine enema; wine freely; cold to head, and hot water to extremities continued. At 6 P.M. had profuse *black vomit*, which kept up to the last. He expired at 8.30 P.M.. It should be remarked that this young man came from Middletown, Connecticut, and had a few weeks before convalesced from scarlet fever. His family physician observed that this season all fevers in that place had a disposition to the typhus type, and I believe also said there were or had been spotted fevers there recently. He had been on board ship only a few days when taken sick.

Case IV. D., midshipman, aged 16; born in Maine; was admitted March 29th. Was seized suddenly, and brought early from the school ship "Constitution" to the town hospiial. Has headache, vertigo, and stupor; pulse thready; ecchymotic spots upon lower limbs. R.—Strychniæ 1-32 t. d.; blister to neck; wine.

March 30. Stupor and vertigo less; pulse somewhat stronger and less frequent; fuller; tongue moist; headache still continues. Brandy toddy, beef tea, and strychniæ gr. 1-32. To allay the nausea which has been very distressing—℞.—Tr. chloroform. comp. gtt. xxx.

31*st*. Continues to improve; reaction complete; pulse increased in strength and less frequent; cephalic symptoms gone. Continue medicine and diet.

April 1*st*. Partial opisthotonos occurred last evening, the strychnia was accordingly suspended. Pulse irregular and feeble, but brought up by the free use of brandy.

2*d*. Opisthotonos relaxed during the night, but he was excessively restless until tranquilized by an opiate enema; continued to lie upon his face until morning; when he awoke he spoke but once, "it hurts," and was turned over upon his back. Brandy and stimulants were used freely without avail; he breathed his last at 9.10 A.M.

Case V. G., midshipman, age 14; born in New York; admitted to the sick list April 8, 1863. At half-past ten o'clock last night he complained of sore throat, and had some fever and headache. The weather was bad, and prevented his immediate removal to the Naval Hospital in town, so he was detained on board until morning, having taken, during the night, spt. æther

nit. When arrived at the hospital, he had stupor from which it was difficult to arouse him, but at these times he answered sensibly; headache; pulse thready, almost imperceptible; death-like pallor; extreme debility; arms and legs dotted with minute ecchymoses; and passed the urine and feces involuntarily, the latter profuse, black, and intensely fetid. Stimulants were administered from the moment of his arrival, ammoniæ carb., sherry undiluted, milk toddy, and sinapisms to abdomen and extremities; these remained on a half hour before reddening the skin. The pulse did not rise under treatment. At 10 A.M. began taking the following formula: ℞.—Strychiæ gr. j; aquæ destil. f℥iv; acid. sulph. aromat. q. s ft. sol. A tablespoonful every fourth hour. Also R.—Quiniæ sulph. ℥j; tr. cinchonæ comp. f℥ss; acid. sulph. aromat. q. s.; aquæ f℥j. A tablespoonful every sixth hour. Frictions with tr. capsicum and chloroform to spine and surface. P.M. Had another evacuation, less profuse but of the same character as the first. Later in the evening some signs of reaction; pulse sensible to touch; great jactitation; pallor yielding, and there is even a tinge of redness on the cheeks; frictions kept up.

April 9. After 2 A.M. this morning, the patient became furiously delirious, and died at 7.48 A.M. Frictions with hot water, &c., and the internal administration of stimulants were perseveringly followed up to the last moment.

Case VI. T. T., midshipman, age 17; born in New Hampshire; was admitted April 13th, complaining of pain in the glans penis, and of passing blood; warm hip-bath, and cups to spine near kidneys were ordered. ℞.—Spts. æther. nit. f℥j ter in die; pulv. Doveri gr. x, hora somni.

April 14. No material change in his condition since yesterday. Continue treatment.

15*th.* Hæmaturia much diminished, and is now laboring under severe catarrh; ordered magnesia ℥j now; afterwards he was ordered quiniæ sulph. gr. ij, ter in die, and five grs. of the pil. hydrarg. to be taken once during the day.

16*th.* Improving a little; urine slight, tinged with blood; nausea and pains of a rheumatic character in extremities; continue medicine as yesterday. To relieve nausea, ℞.—Tr. chloroform co. gtt. xxx, ter in die.

17*th.* Bowels constipated; enema and ℞.—Hyd. chlor. mitis gr. v; pulv. rhei gr. x.—M. Urine somewhat discolored. Spt. æther. nit. and infus. lini.

22*d.* Up to this time has improved; no blood in urine; general condition better; pulse stronger; bowels somewhat consti-

pated, for which was ordered a saline aperient; petechial spots have appeared on arms and legs.

23*d*. The parotid on left side has enlarged considerably. Apply unguent. iodinii. ℞.—Potass. iodidi gr. viij, tr. gentian comp. f℥j, ter in die.

24*th*. Enlargement of right parotid gland this morning; the left very large. Continue iodine externally and internally.

25*th*. Both sides neck very much swollen, otherwise doing well. Continue medicine.

26*th*. Swelling declining on left side, and rather larger on the right; colicky pains sometimes severe. Omit iodide potass. ℞.—Tr. chloroform comp. gtt. xl at once, and repeat this medicine in doses of twenty drops pro re nata.

29*th*. Tumor on left side pouting, and declining on the right. Continue potass. iodid.

30*th*. Opened the abscess on left side at the angle of the jaw, and let out a large quantity of pus, with immediate relief. Apply poultice, and continue medicine; supporting diet.

May 1. Opened abscess on right side, and poulticed.

2*d*. Both abscesses discharging profusely, and passed stools, tinged with blood, during the night. ℞.—Calomelanos gr. v, ol. ricini ℥j; M.; also tr. chloroform comp. gtt. xxx, twice.

3*d*. Bowels being loose last night, he took R.—Creta ppt. ℥j, pulv. Doveri ℥ss, ft, chart. No. j, and then R.—Ext. nucis vom. gr. ij, pulv. opii gr. vj, M. et ft. in pill. No. vj. One every six hours. Diet supporting.

7*th*. Improving gradually, but his bowels keep rather loose, though the last two stools are natural. The abscesses are discharging less. Suspend all medicine, ordered one pint Scotch ale daily, and good nutritious diet.

8*th*. Small stools and numerous. R.—Plumbi acet. gr. vj, pulv. opii ij. M. ft. pil. viij. One every three hours; milk toddy, and warm diet.

9*th*. Pulse small, and 140 in a minute; ecchymotic streaks extending from both groins upwards upon the abdomen; discharge from abscess continues, and the diarrhœa is also frequent, but not large stools; these were checked for some hours by an enema of tannin. During the forenoon fell in heavy naps and snoring stertorously. Milk toddy, beef-tea, acid. nit. gtt. j, in each draught of beef-tea.

10*th*. Pulse 130; general appearance improved, though he is still very low. Supporting treatment. P.M. R.—Pil. hyd. gr. v.

11*th*. No evacuation since 3 P.M. yesterday. The enema of

tannic acid has been repeated several times. Continue beef-tea and nitric acid, with other nourishment.

12*th.* Has diarrhœa again to-day, but was promptly checked by enema and epiates. Passed the night pretty comfortably.

13*th.* Pulse 100, and whole appearance indicating an improved condition of the patient, bowels loose; gave an enema after each evacuation.

16*th.* The patient remained about same up to this evening, when he discharged a quantity of coagulated blood from the bowels, and a general hemorrhagic disposition prevails. Continue to use nourishing and supporting aliments and stimulants.

24*th.* The patient continued in this debilitated and uncertain condition until to-day; there now seems to be a decided improvement; pulse 100, stronger and fuller. Continue same line of treatment.

27*th.* Convalescent. Continue treatment.

Case VII. V., midshipman, age 15, born in California, was admitted April 30, complaining of sharp pain in the side, pleuritic in character; has had his feet wet; dry cups to side, all bleeding, either local or general, being contraindicated. Apply a blister 6 in. by 6 in. over seat of pain. R.—Potass. et antim. tartrat. gr. ¼, every third hour.

May 1. Febrile movement moderate. Dress blister; ecchymotic spots upon legs and arms. R.—Spts. æther. nit. ʒj, ter in die.

4*th.* Up to yesterday has had fever at intervals, but to-day it has been constant; no delirium. R.—Quiniæ sulph. gr. iij, bis in die, pulv. Doveri gr. viij, hora somni. No pain; the sputa tinged with blood. Continue quinia, effervescing draught, spts. æth. nit.

5*th.* But little blood in sputa; little cough; pulse weak; complains of sharp pain at a certain point on the œsophagus, which makes him averse to swallowing. Suspend all medicine; give nourishing food in small quantities at a time, and frequently.

6*th.* Swallows more easily. Continue diet.

7*th.* Improved a little; pulse 60, and peculiar, with long intermissions; the pneumonia, of which there were physical signs, has yielded to the treatment pursued; little fever. Add to each draught of the beef-tea acid. nitric. gtt. j.

10*th.* Less difficulty in swallowing; no fever; ecchymotic spots gone; little or no cough. Continue medicines.

14*th.* Up and out of doors; has been taking following formula: R.—Quiniæ sulph. gr. xvi; tr. gentianæ comp. fʒj; aquæ fʒiij.—M. A tablespoonful every third hour.

Causes of the Fever.—It was suggested a long time ago, by some of the New England physicians, that spotted fever resulted from the use of spurred rye, but this opinion was manifestly untenable, inasmuch as the disease prevailed among those against whom no such a cause could be operating. In a short time it became a settled opinion that its prevalence, like other epidemics, depended upon a peculiar state of the atmosphere, and the pre-disposition of the people being favorable to its operation. Yet they recognized as exciting causes intemperance, exposure to cold and wet, fatigue, anxiety of mind, and fears. So great is the latter an exciting cause, that Thacher remarks, "that the most fatal consequences have been known to result from the influence of horror and fear. The terrific name spotted fever, or cold plague, its well known fatality, the tolling of bells, its frightful visage, the weeds of mourning, and the tears of sorrow, wonderfully conspire to induce a morbid state of the system favorable to the reception of the disease, and tend more immediately, perhaps, than any other causes to multiply the instance of mortality." The disease is recognized by all *not to be contagious*, and the epidemic at Newport showed not the slightest disposition to spread.

Its Duration.—In some cases the disease produces death in five or six hours, in others runs on for three or four weeks before a fatal termination. Case III. appeared to have died after seeming convalescence had been established. The greatest number die on the third and fourth days. In mild cases convalescence may be established on the third day, and, indeed, some extremely bad ones mend rapidly from that period. Dr. Miner states that in many of those cases which were neglected or treated with evacuants, a peculiar and usually irreparable sinking and exhaustion occurred on the third, fifth, or more commonly on the seventh day.

Age and Sex.—All classes, sexes, and ages, from one year to seventy, are its indiscriminate victims, though I am unable to find any reliable statistical matter bearing upon these points, in the works of those who have generally made these statements; indeed, we are led to believe that the rich and the poor, those living in sparely inhabited districts, and those in towns and cities; those in densely crowded houses, and those in large, airy mansions, were alike subjects of the disease. Locality may have some influence upon it, for in the early epidemics the disease affected more particularly and more fatally the inland towns of New England, while those on the sea coast escaped, or had it in some milder form.

Mortality.—In New England the horror of the ravages of yellow fever had scarcely abated before spotted fever made its appearance, and was not less malignant and deadly than its predecessor. Prevailing more or less extensively in the interior of the country, and on the seaboard during the cold and damp months of winter and spring, this fever in some places on its first appearance was fatal to more than half those attacked; in other seasons and places the mortality was less, and under favorable circumstances only one in thirty or forty died. In Newport more than half died, and in Philadelphia and its environing towns, one out of every four or five cases proved fatal.

It appears that the mode of treatment has a vast deal to do with the result of this disease, for Dr. Miner mentions that two physicians, in the year 1823, had charge of 360 cases, of whom only twelve died, six adults and six children.

However, the mortality of the disease will vary with the season and locality, and observe the law of other epidemics in being more fatal at the beginning than at the latter periods of its epidemic occurrence. We might add this additional reason, when so much depends upon the prompt and energetic treatment of the fever, of its greater mortality during last winter than during the winter of 1823, the want of a sufficient acquaintance with its nature and treatment by the present generation of physicians, for to them it was a new disease, an unknown emanation from the box of Pandora.

Anatomical Lesions.—Unlike some of the essential fevers, this affection does not present any characteristic lesions, but simply such as result from an *altered integrity of the blood*, characterized by a disposition to escape from its vessels. In those cases examined from 1813 to 1816, the brain and its meninges were always found congested, effusion of serum into the ventricles and subarachnoid spaces. One author states he met with coagulable lymph in the lateral ventricles. Changes in the heart, pericardium, lungs, and pleuræ, indicating generally passive congestions, subserous effusions of blood in patches of small extent, occasionally inflammation. The stomach showed submucous spots of the same character, and contained black vomit or such fluid as noted in Case III. No autopsic examinations were had in the Newport cases, and thus much valuable information was lost. It might be well to observe here, that the medical officer in the Navy has much opposition to encounter in the pursuit of *post mortem* investigations, springing, in many cases, from deplorable superstition on the part of the sailor, and not unfrequently from the prejudices and narrow-minded develop-

ments of officers, more particularly those of the old school, whose travel and experience would seem to have circumscribed instead of expanding their liberality and common sense.

Diagnosis.—When this disease first broke out on the practice-ship Constitution, the first case caused some speculation and surmise as to its nature, but the correct diagnosis was readily arrived at in the second case. Dr. Miner truly observes, that "there may be with the inexperienced some hesitation as to the nature and name of the complaint; but upon the whole there is less liability to mistake than in the diagnosis of any other acute fever with which we are in the habit of meeting in the ordinary course of practice. Dysentery, cholera, cynanche, catarrh, cough, pneumonia, measles, rheumatism, gout, and even common typhus are often complicated with it; yet there is always some prominent symptom by which it may be determined when the general affection is that of typhus syncopalis" (spotted fever.)

The suddenness of its attacks, the prominent severe headache and pain in the limbs, from the very beginning, with delirium, stupor, and coma, and the occurrence in two or three days of an eruption, mark it at once as peculiar and distinct from the few diseases with which it could only be possible to mistake it. The countenance is expressive of extreme suffering and anxiety, and in some cases of a dull, sallow hue, quite characteristic. It will be seen that in some of the cases above detailed, soreness of the throat was a prominent symptom, and this might lead one in the beginning of the affection to prognosticate scarlet fever, but the latter has an altogether different course, with an exanthem quite distinct from the ecchymoses of spotted fever.

Dr. Palmer was inclined to regard his first case as typhoid fever, but the rapid course of the disease, the early and peculiar eruption upon the skin, and general character of the delirium, so different from typhoid, led him to correct his diagnosis to petechial fever immediately.

I heard of a medical gentleman who felt quite sure the first case of spotted fever, that came under his care, was one of small-pox.

Prognosis.—The prognosis in this malady should always be guarded, and its epidemic character as to malignancy, and its secondary complications always kept in view. From the histories of the New England epidemics it appears that in those seasons when the disease showed grave cerebral complications more prominently, the prognosis was bad, and, on the other hand, it was more promising when only the organs of the chest

and abdomen seemed to bear the brunt of the attack. In the first class of cases some of the patients were comatose almost from the very inception of the fever, and required speedy and active treatment to afford them even a chance of life. Miner describes a peculiar kind of thoracic functional derangement, irregular in character, "the inspiration occurring only at intervals of several seconds, and being usually long and full, while the expirations were so short that the breath was parted with instantaneously. This condition, in combination with sinking, was often the first warning of danger in the insidious cases, and it was almost invariably irremediable."

Those patients who escape to the third or fourth day, with proper treatment, have encouraging chances of recovery.

Treatment.—In the treatment of this disease most all experienced physicians avoid blood-letting, and some condemn it in all cases. Dr. Page says that in the year 1816 he attended 220 cases of spotted fever, and bled but once to the extent of 8 or 10 ounces—a robust man, and even it might, in this instance, have been avoided. Dr. Miner holds nearly the same language, and states, "it should be observed as a rule to avoid anything that might *tend to waste the vital powers.* Evacuations, if copious, invariably render the mild cases severe, and the severe ones fatal. Probably more than three-quarters of the fatal cases were the consequence of spontaneous or factitious purging or vomiting."

Not one of the Newport cases could have been bled without dangerous, if not fatal, results

Purgatives.—All energetic purgatives are likewise condemned, and one of the authors who has given the clearest account of the therapeutics of this disease, objects to the use of these medicines altogether until after the third day, when the mildest of them may be employed, as castor oil, rhubarb, &c., and along with a host of other practitioners, speaks highly of an injection of milk, salt, and sugar. Some patients were known to have died while under the operation of a dose of calomel and jalap.

Emetics.—Emetics of ipecac and sulphate of copper engaged the confidence of most practitioners when there was "a foul state of the stomach."

Epispastics.—This class of remedies always ranked high as therapeutical means in the treatment of this malady, and were always ordered early in the disease, and as near the part most affected as possible; and in order to obtain these speedy good effects, the skin should first be excited by friction with strong tincture of cantharides—"so highly beneficial are these effects,"

says Dr. Thacher, "that blisters ought to be applied in succession to the head and chest until the most effectual relief be obtained. In every case of considerable violence the head should be immediately shaved, and cold water and vinegar applied, while the back of the neck and temples are vesicated."

Opium.—Dr. Miner speaks of this drug as almost a specific, and I cannot do better than quote his own language: "A few cases imperiously required half an ounce of the tincture of opium in an hour, or half a drachm in substance in the course of twelve hours, before urgent symptoms could be controlled; and even some cases required a drachm in the same time. *All those patients whose symptoms were promptly met with opium invariably recovered.*"

Arsenic, in the form of Fowler's solution, acquired throughout New England, where the disease most prevailed, considerable reputation, and the most experienced physicians agreed in their expressions of confidence in its superior efficacy. The dose recommended was four to six drops every four or six hours, until its effects upon the system became evident by a peculiar sensation about the eyes.

Strychnia.—Dr. James C. Palmer, U.S.N., used, as he believes with great advantage, strychnia, beginning with the article early in the disease, and it will be seen that most of the cases above detailed were thus treated. Care should be taken that we should not confound the tetanic movements, a phenomenon of the disease, with those, the result of strychnia. I am inclined to think that the good effects attributable to that drug in the above cases resulted more from the quinia used in combination with it, and the stimulants employed at the same time.

Stimulants.—We come now to the most important class of remedies in the treatment of spotted fever, and those which bring us unmistakably immediately good results, saving patients from certain and impending collapse. Stimulants are applied in the usual manner externally, hot bricks, bags of sand, hot foot-baths, &c., billets of wood heated and applied to different parts of the patient's body placed between blankets. Frictions of the whole body with sweet oil have been highly recommended.

Among the milder internal stimulants we have hot tees made of sage, origanum, pennyroyal, peppermint, and the dwarf yew; more active than these, the volatile oils, particularly the oil of turpentine, both by the stomach and rectum.

Brandy and camphor form an excellent combination. Dr. Hall relates the case of a young married lady who was attacked

by spotted fever after her first lying-in, and had mild delirium, which soon rose to the most violent fit of distraction, with supervening coma. In one hour 40 grains of camphor, and 180 drops of laudanum were given to her; and in the following three hours she took 400 drops more, a bottle of Madeira wine, and some brandy; immediately after which she began to mend, and gradually recovered, contrary to the expectations of all her friends. In another case, where coma had set in, he gave in six hours 500 drops of laudanum with a quart of wine, and nearly as much brandy; the patient recovered.

Quinia and bark were almost always administered towards the end of the disease, and followed up, when convalescence was established, by beef, mutton, and chicken.

I cannot do better than finish this summary of treatment by the observation of Dr. Hall: "That no disease requires more careful nursing, and perhaps none is more liable to relapses, and when severe relapses do occur, they are frequently dangerous, and often fatal; but are to be treated as new cases."

ON THE BRAIN OF A BUSHWOMAN.

By JOHN MARSHALL, F.R.S., Surgeon to University College Hospital.

The Bushwoman was aged, and about 5 feet high—unusual for her race.

The form of cranium is a long narrow ovoid—less dolichocephalic, however, than the negro skull; the face is high-cheeked, and the nose very small and flattened. The frontal sinuses are absent, and the walls of the cranium are thick—so thick that its internal capacity is less than would be expected from its outward form and size, being equal to 35 oz. av. of water, or 60.64 cubic inches, which, for the height of the Bushwoman's body, is decidedly, but not very small.

The actual weight of the preserved encephalon proved to be 21.77 oz. av., which would probably represent, as the author shows, 31.5 oz. for the weight of the recent brain enclosed in its membranes. Allowance being made for the height of the body, this is less by 8.5 oz. than the average weight of the brains of European females of the same age, as estimated from the Tables of Dr. Boyd, published in the Philosophical Transactions for 1861.

The cerebrum proper probably weighed, in its recent state,

27.25 oz., the cerebellum 3.45 oz., and the pons with the medulla oblongata .8 oz.

The ratio of the cerebrum to the cerebellum was as usual, 7.7 to 1; that of the cerebrum to the body was probably as 1 to 52, and that of the cerebellum to the body as 1 to 418, instead of the usual ratios of 1 to 41, and 1 to 328.

An examination of the general form of the cerebrum shows that it is small, but long—defective in width, and especially in height. Its outlines and surfaces are angular and flat, instead of rounded and full. The frontal region is very narrow, shallow, much excavated below, and compressed latterally near the entrance of the Sylvian fissure. The parietal region is low, but prominent latterally; the occipital region is long, but defective in height; and the temporal region is long, but narrow.

The cerebrum overlaps the cerebellum by .5 inch, which is as great an absolute overlap as is usual in European brains, but less relatively to the length of the brain, which is very long in the Bushwoman.

The fissures, lobes, and convolutions are then described at length, and compared with those of the ordinary European brain, with those of the Hottentot Venus's brain figured by Gratiolet, and with those of the young Chimpanzee. It is impossible to give in an abstract even an outline of the facts recorded in this part of the paper.

The general result of the inquiry is to show that the fissures are rather more complex than in the brain of the Hottentot Venus, but much less so than in the European. They are rather more complex on the left than on the right side of the brain. They are widely separated from those of the Ape's brain.

The author concludes—1. That all the convolutions proper to man are present, but, as compared with the European brain, are much more simple, and less marked with secondary sulci. The greatest deficiency is in the occipital and orbital convolutions.

2. That the convolutions, taken generally, are rather more complex than those represented in Gratiolet's figure of the Hottentot Venus's brain, which may be partly due to the obliteration of details in the latter during its long period of preservation.

3 & 4. That the resemblance between the Bushwoman's brain and the Hottentot Venus's brain is sufficient to justify the conclusion that the latter was not an idiot, or a defectively developed individual; but both brains, as compared with the European, have an infantile simplicity, characteristic partly of sex, but chiefly of race.

5. That the convolutions being more simple, can be more easily traced and compared on the two sides than usual, but still show abundant evidences of the asymmetry characteristic of man.

6. That there is a greater difference between the Bushwoman's cerebrum and the highest Ape's cerebrum than between it and the European cerebrum; but a less specific difference between it and the European than between the Chimpanzee and the Orang; and, of course, much less than between the highest and lowest Quadrumanous brains. There is, however, less difference between the Bushwoman and the highest Ape than between the latter and the lowest Quadrumanous animal.

7. The general results, the author thinks, justify the expectation that characteristic differences of degree of cerebral development may hereafter be found in the several leading races of mankind.

The author then proceeds to describe the color and relative proportions of the grey and white substance, the commissures, ventricles, and ganglionic masses.

The commissural fibres of the corpus callosum are very deficient in the Bushwoman; and the other commissures are also small. The body and anterior cornu of the lateral ventricle are also small; but the potserior cornu and its contained parts are very large.

In the cerebellum, the median parts appear to be somewhat less developed than the hemispheres. Its transverse commissural fibres are more largely developed than the same system of fibres in the European brain; the Chimpanzee standing, in this respect, still lower. The laminæ of the cerebellum are even more numerous than in the European specimen with which the Bushwoman's brain was compared. The cerebellum seems to be more perfectly developed than the cerebrum.—*Boston Medical and Surgical Journal.*

DISEASE TERMED "BLACK LEG," AMONG THE OTTAWA LUMBERMEN.

Dr. J. O. Grant describes (*Med. Times and Gaz.*, Dec. 26, 1863) a disease of this name prevalent among Ottawa lumbermen.

"In one shanty," he states, "twenty-five men out of thirty-six were attacked with this disease, and, from ascertained facts, the great proportion of the cases were developed as follows:—

Slight pains in the extremities, particularly about the ankle joints and posterior parts of the legs. After a few days, in severe cases, the pain is liable to extend to the arms and shoulder joints. The integument of the legs is first observed to change color, passing from a somewhat yellow to a deep venous hue, in large patches, almost approaching to a black (hence the term.) The legs and the arms are liable to swell, particularly the former. Frequently, two or three weeks before any constant pain is complained of, or change of color takes place, the limbs move sluggishly in response to the will, and considerable soreness is experienced upon pressure. Abrasion of the integument is followed by a sero-sanguinolent discharge; and, if much irritated, is liable to inflammation, partaking of the asthenic character. The limbs are said to be almost free from pain when immersed in water during the spring season rafting; but afterwards they become hard, painful, and stiff. The gums are frequently observed swollen and spongy for some weeks before the limbs become painful. Bowels usually regular, and urine voided in normal quantity. Sleep restless. Many of the men were subject to headache, giddiness, loss of appetite, and swelling of the eyelids; also, at times, to a peculiar sensation, as if the head had attained enormous dimensions. During the month of April the great proportion of these cases became most marked, and, under judicious treatment, rarely extended over a period of four weeks before convalescence was established. It was not an unfrequent circumstance to observe, amongst those who were exposed to the same dietary influence, attacks of acute rheumatism, as well as nyctalopia, both of which readily yielded to rest and regimen, in conjunction with mild medicinal agents. Whenever nyctalopia is detected by the experienced lumberer, fresh milk is administered largely, when obtainable, which has a most speedy and salutary influence, the retina recovering its tone in the space of a few days.

"This disease, from its particulars, appears to class with scorbutus, being from all appearances an aggravated variety, resulting not alone from a sameness of diet, but also from the influence of nitrate of potash upon the blood. This salt is largely used by the packers to preserve the pork in the summer season. During the early lumbering operations, twenty-five or thirty years ago, on the rivers Ottawa and Gatineau, the occurrence of this disease was very frequent, owing in a great measure to the extensive use of this salt of potash. The trade and experienced packers, being aware of these facts, now have recourse to this material only in moderation, an excess not being

necessary to prevent putrefaction taking place, in consequence of which this disease is now seldom observed. Dr. Garrold states (*Monthly Journal of Medical Science*, January, 1848), that from an examination of the composition of the food, etc., etc., he was led to the conclusion that the absence of potash was the cause of scurvy. Notwithstanding the accuracy of these observations, it is a fact well tested through a process of years, that when any excess of nitrate of potash is used to preserve the staple article of diet, pork, this scorbutic black leg is liable to be developed."

INTERNAL ADMINISTRATION OF BELLADONNA IN CASES OF SEVERE BURN.

Experimental physiologists hāve recommended belladonna for use in the treatment of burns, in the belief that it diminishes that state of the nervous functions under which reflex inflammations are likely to be originated. They assert, on the other hand, that of all remedies opium is the one most powerful in increasing this peculiar state, and that it ought consequently to be avoided. In clinical practice, however, we believe that this opinion is wholly disregarded, and that opium is the form of anodyne most commonly resorted to in these cases. Yet it is generally suspected that the causes of death after burns are, in a majority of instances, connected with reflex inflammations, *e. g.*, ulcers of the intestine, pneumonia, &c. In a series of cases under Mr. Hutchinson's care in the London Hospital during the last six months, the belladonna treatment has been tried. In some remarks at the bedside of a patient the other day, Mr. Hutchinson stated that he considered the general results to have been fairly satisfactory. He adverted to the extreme difficulty of forming ā trustworthy conclusion on such a matter, since these cases are, in their nature, never stationary, but always tend either to improvement or the reverse, and often with great rapidity. If, therefore, the remedy were commenced when the patient was very ill, it might chance to be just at the time when the improvement was about to set in; and if, on the other hand, the patient got worse, it might fairly be alleged that the remedy was used too late. If, on the other hand, we should give it in cases in which, as yet, no serious symptoms had appeared, we might again be much led astray, since a great majority of burn cases do well without any special plan of medication. Mr. Hutchinson stated that the cases in which the remedy had

seemed to be most useful, were those of children in whom general febrile symptoms, attended with restlessness, loss of appetite, &c., had set in without any local complications. In several of these, there could be no mistake that the feverish state had passed away quickly and very satisfactorily under the use of belladonna. In no cases had he witnessed any ill results. If the burn itself was very painful, and the patient unable to get sleep on account of the pain, then the belladonna seemed comparatively inefficacious to procure ease, and morphia was far more efficient. As a rule, no opium had been given to the cases treated by belladonna; but in a few, and those chiefly in adults, it had been found requisite to give an occasional night dose. Possibly more benefit might have been obtained had the administration of the belladonna been pushed to larger doses. The usual dose given had been a third of a grain three times a day. In speaking of the less frequent results of burns, Mr. Hutchinson mentioned a recent case in which acute inflammation of one hip-joint, followed rapidly by dislocation, had occurred in a child who had been severely burnt on the arm and chest. He was in doubt whether to regard it as a reflex inflammation, or as a consequence of pyæmia.—*Med. Times and Gazette, Jan.* 2, 1864.

SARRACENIA PURPUREA IN VARIOLA.

By NOAH C. LEVINGS, M.D., of New York.

During the last month (January), I had the fortune to have under my care four children, in one family, sick with variola. Considering this to be an unusually favorable opportunity to decide upon the merits of the sarracenia as a "specific" for this disease (the children never having been vaccinated), I obtained the contused root of the sarracenia purpurea direct from Major Lane, of Halifax, the putative father of the "specific." I also requested Dr. Jacobi, of this city, to see the cases until their termination, independently of myself, and then to give me his opinion on the remedy.

The following is the history of the cases:—The first one, a boy, three years of age, unvaccinated, commenced, Tuesday morning, Jan. 12th, to complain with the usual symptoms of variola. On Thursday, the third day, the eruption appeared. We concluded to allow the disease to get under full head before commencing the use of the "specific." So, upon Monday at

ternoon, the infusion of sarracenia purpurea, an ounce to the pint, was given according to published directions, that being the fifth day of the eruption, which was now distinctly pustular. The following afternoon, twenty-four hours after commencing the remedy, there was *no* increased flow of urine, no flattening nor shrivelling of the pustules, as we expected. Wednesday, the seventh day, no change in the symptoms or eruption, except a lessened fever, fuller pustules, and the central depression more positive. The eighth day, of course, the pustules began to scab, and some to break and crust. By the tenth day one-half the scabs on the face had fallen off; but on the trunk and limbs the peculiar pustules were advancing through their usual course without at all being modified by the medicine.

The second case, a boy of eight years, unvaccinated, taking the disease three days later than his brother, went through exactly the course of unmodified small-pox.

We have the same history for the third case, an infant of seven months, the eruption being preceded by convulsions, and no modification of the disease or symptoms, though administering the medicine from the commencement.

In each of these three cases the pustules went through the invariable course, being on the trunk three, and on the limbs six days later than on the face.

The fourth case, a sister of the others, ten years old, whom I vaccinated, the vaccination taking the precedent of the variola by two days, was changed to a very mild case of varioloid, having but eight or ten pustules on the face. This one was about the house each day, and had no medicine.

Presuming to know the natural course of variola, and having three cases neither modified, nor the sequence of the symptoms altered by the free use of the infusion of sarracenia purpurea, Dr. Jacobi and myself consider the sarracenia as without any medicinal virtue whatever in shortening the period of varialo, or "causing the pustules to wither or fall off" before the eighth day.

Drought in the West Indies.—A drought of more than twelve months' duration in the West Indies has caused much suffering and disease to the inhabitants; no rain having fallen in Guadaloupe and other islands of the Antilles since August 16th, 1862. The mortality among the white population has been very great.

Editorial.

ILLINOIS STATE MEDICAL SOCIETY.—The next regular Annual Meeting of the Illinois State Medical Society will be held in Chicago, commencing on the first Tuesday of May next. We anticipate a full attendance and profitable meeting on that occasion.

CHICAGO MEDICAL COLLEGE COMMENCEMENT.—The Fifth Annual Commencement of the Chicago Medical College—Medical Department of Lind University—will be held on the evening of the first Tuesday in March next.

BOOKS AND PAMPHLETS.—Several of both have been received, and will be duly noticed in our next number.

SARRACENIA PURPUREA IN SMALL-POX.—In another part of this number we publish the result of the experience of Dr. N. C. Levings, in the use of this article. We have also used it in several cases. In the majority of them we could not perceive that it had any effect whatever. In one case, of a young man who supposed he had been well protected by vaccination, but on whom the variolous eruption made its appearance so thick as to indicate a severe form of the disease, we gave the infusion of the Sarracenia freely, and the entire eruption proved abortive, drying up completely about the fifth day without suppurating. No doubt such occurrences have been noticed by others, even where the Sarracenia has not been used, and hence they must be regarded as purely accidental.

COMMENCEMENT IN RUSH MEDICAL COLLEGE.—The commencement exercises of the twenty-first annual course of lectures in Rush Medical College were held on Wednesday evening, the 27th ult., on which occasion seventy-nine gentlemen received the Degree of Doctor of Medicine. Prof. Brainard, President of the Faculty, conferred the degrees, presenting each graduate with his diploma.—*Chicago Medical Journal.*

STATISTICS OF MORTALITY IN CHICAGO.—As some of our readers may have seen the pretended tables of mortality published in the daily papers of this city once a month, we insert the following communication, sent by the Chicago Medical Society to the Mayor and Council, for the purpose of relieving the profession of the city from any responsibility for the imperfections and absurdities of these tables. The communication was received in the Council and referred to the Judiciary Committee, with a fair prospect of having better regulations for the future:—

To the Mayor and Council of Chicago:—

The Chicago Medical Society would respectfully call your attention to the defective method of obtaining and recording the statistics of mortality in this city, which has been adopted for several years past.

It is justly considered one of the most important duties of every municipal government to ascertain and remove, as far as practicable, all causes of disease and death in the community under its jurisdiction.

In the work of ferreting out the causes of disease in any given city or community, a correct record of mortality, setting forth the age, sex, nativity, and place of residence, with the immediate cause of death in each case, is indispensably necessary. Such a record in this city would enable the medical faculty and the Health Department to determine at all times, not only the total number of deaths, but the precise streets and wards in which they occurred, the class of people suffering most, and the nature of the diseases giving rise to the mortality. These facts being ascertained, a comparison of the sanitary condition of the streets and wards furnishing the highest ratio of mortality with that of the more healthy districts, would quickly show the causes acting injuriously upon the health of the people, and how far they were capable of removal.

For the purpose of furnishing such a record of mortality as we have here suggested, the framers of the present city charter and ordinances made the following provisions, viz.:—

"SEC. 12. It shall be the duty of the City Sexton to keep a record of all interments which may be made in the city: stating the name, age, and disease, or other cause, and date of death, the *Division* in which the deceased resided, and when practicable, the place of birth. A transcript of said record shall be

filed by the Sexton in the City Clerk's office for record, at least once a month; and when required, he shall cause the same to be published.

"SEC. 13. For the more effectual execution of the foregoing section, it shall be the duty of the attending physician, on the demise of his patient, to grant a certificate to the sexton in attendance, on application, setting forth the particulars above specified. Said certificate shall be delivered previous to interment, to the City Sexton by the sexton in attendance. And in all cases where no physician shall have been in attendance, or where the attending physician shall neglect or refuse to grant such certificate, or cannot be found, it shall be the duty of the sexton to ascertain and report in writing to the City Sexton, previous to interment, the several particulars aforesaid, and the name of any physician who shall refuse or neglect to grant said certificate. If any sexton or physician shall fail to comply with any provision hereof, he shall be subject to a penalty of five dollars for every offence. Every person shall be deemed a sexton who shall officiate as such at any funeral. The City Sexton is hereby authorized to procure suitable blanks for the use of physicians and sextons, and furnish the same gratis."

With one exception, these provisions are sufficient, if correctly executed according to their plain intent and meaning, for all the purposes desired. The exception to which we allude, has reference to the locality of each death. The law as it now stands requires only the specification of the "Division" of the city in which it occurred. With the present extended limits of the city this is too vague to be of any practical utility. Every certificate of death should state the street and number, or if no number exists, the street with the name of the nearest street crossing it. Such an amendment would enable the Health Officer at all times to determine the precise district or neighborhood in which any unusual mortality was occurring.

Knowing fully the paramount importance of this subject, to the welfare and prosperity of the city, we earnestly ask your attention to the amendment here proposed, and then to a rigid and faithful enforcement of all the provisions of the law. The record of mortality as it has been kept in this city for five or six years past, is entirely worthless, except in relation to the gross mortality of the city. We are aware that for some time past a tabulated monthly statement has been published, pretending to set forth not only the gross mortality for the month, but also the causes of death. The undertakers and sextons, instead of procuring reliable certificates, in accordance with the law,

from the attending physicians, simply gather from the family or neighbors some pretended cause of death, insert it in the certificate themselves, and return it for registry. So true is this that not a single member of this Society has been called on for a certificate of death twice a year for the last five years. Of course certificates made up in the manner here indicated are mere inventions; and the tabular statements founded on them and published, are so grossly absurd as to be a disgrace to the Health Department of the city. That we do not exaggerate will be apparent by a reference to any of the published tables. Take, for instance, the most recent statement, which professes to include the causes of death for the year 1863. There we have six deaths ascribed to "abscess;" but in what part of the body is not stated. Thirty-four are ascribed to "accident;" yet further along in the table, twenty-nine more are recorded as having been "killed," and fifty-five "drowned." Forty-four are said to have died of "decline;" but, whether this means that they died because they "*declined*" to live any longer, or because they had consumption, it is not possible to determine. Seven died of "fever," and twenty-one of "fits," but what kind of *fever* or *fits* is not stated. Seven died from "lung disease," five because they were "*nervous*," one hundred and eighty-six from "teething," &c., &c. It is needless to repeat that such tables are not only valueless, but they are subjects of jest and ridicule, both at home and abroad. The faults of these tables are not to be ascribed to the Health Officer, who nominally reports them, but to the sextons who *manufacture* certificates of death, instead of procuring them from physicians, as the law requires. To correct the evils and negligence so manifest in this important department of our city affairs, we earnestly ask your attention to the following propositions:—

1st. Amend section 12 of revised ordinances, relating to the Health Department, by striking out the word "division," and inseting in its place the words "street, number, and ward."

2d. Adopt such measures as will insure the faithful execution of all the provisions of the law in relation to the procurement of proper certificates, their prompt return to the proper officer, and their regular tabulation and publication.

N. S. Davis, *Chairman of Committee.*

The Chair of Chemistry at Berlin, also that at Bonn, have been offered to Dr. Hoffman, of London. The University of Bonn propose to place £20,000 at his disposal for the establishment of a laboratory.

STATE BOARD OF EXAMINERS FOR THE DEGREE OF DOCTOR IN MEDICINE.

We are gratified to see that the initiative in this measure has been taken by the Faculty of the Buffalo Medical College, and most earnestly hope it may cause the adoption, in tangible form, of the measure, which if carried out will do more for the elevation of the profession than any other reform which could be suggested.

At the Annual Meeting of the New York State Medical Society, now being held in Albany, the following was presented, and on motion adopted:—

UNIVERSITY OF BUFFALO, MEDICAL DEPARTMENT.

On motion of Prof. Chas. A. Lee, seconded by Prof. James P. White, it was

Resolved, That the New York State Medical Society be requested to appoint a committee to consider the expediency of, and to report a plan for, the appointment of a State Board of Examiners for the degree of Doctor of Medicine, and to report at the next meeting of the Society.

Resolved, That the same committee be instructed to bring the subject before the next meeting of the American Medical Association, and that the delegates of this Society be instructed to urge the general adoption of the same plan in other States of the Union. Carried unanimously.

THOS. F. ROCHESTER, *Chairman.*
SANFORD EASTMAN, *Dean of the Faculty.*
Buffalo, Feb. 2d, 1863.

This is certainly an effort in the right direction, and is exceedingly creditable to the institution suggesting it. When the graduation of students in medicine is wholly separated from the duty of teaching, and an impartial Board of Examiners shall decide who shall, and who shall not receive the degree of Doctor in Medicine, very much will be accomplished for the elevation and advancement of the profession. It is striking at the very root of a great evil, and will meet with opposition; indeed, we have no doubt it will be overwhelmed in the almost unanimous opposition which it will meet from the various institutions now empowered to grant diplomas. It is a measure that Medical Colleges, as such, cannot at present afford to favor, though the Professors are more fully sensible of its importance than any other individuals. There is no doubt that an impartial Board of Examiners would reject, as unprepared for the

duties of the medical profession, from one-quarter to one-third of the young men who, under the present system of graduation, are yearly admitted to the practice of medicine. This we believe to be true, and to be more or less applicable to all places in this country where young men are taught the primary branches of medical knowledge, and graduate, after "three years' study, and two full courses of lectures, the last at this institution." The State Examiners should receive compensation only from the State; should be disconnected from all schools of instruction; should, in a word, be wholly impartial.

It has been claimed that the same was accomplished by the appointment of Curators, who are invited to *attend* the examination of the students and vote upon their qualifications; and this does *appear* quite satisfactory, while in reality it accomplishes nothing. Whoever notices the manner of these appointments, the terms of this service, and the opportunity afforded to determine the respective merits of individuals, will readily discover that in this way the feeblest protection is afforded the open doors of our profession, which should be guarded by ever faithful janitors.

We understand, also, that this plan of appointing State Examiners has been considerably perfected by the Institution suggesting it, and that the details will be urged upon the consideration of the State Society at its present meeting. It appears that the Buffalo Medical College are in earnest in advocating this measure. The competition in medical schools and the desire to obtain large classes, has had prejudicial influence upon the standard of medical education, and so great has this evil become, that it is quite time for commencing a reform. Young men have been encouraged to pursue the study of medicine without preliminary preparation, and graduated without respectable professional attainment, thus lowering the professional standard, and making the degree of Doctor in Medicine a disgrace, rather than an honor. If this reform, now suggested and urged upon the profession by the Medical College in Buffalo, is favored by the other colleges in the State, we shall soon be redeemed from the power and influence of a system which has disgraced the profession, lowered its standard of attainment, reflected obloquy and contempt upon its degree, and come well nigh reducing medicine, as learned and practiced, "to the level of a trade."

It may be thought that we draw this matter in rather high colors, but the revelations of modern investigation leave no doubt that a poor doctor is vastly worse than none at all. I say revelations of modern investigation, for it was formerly be-

lieved that any one who could give some medicine was useful in the absence of a physician; but it has been reserved for the physicians of our day to discover, and for the people of our times, in any measure to perceive, that medicine, *per se*, is poison, and useful only when applied under the direction of an honest, educated, intelligent physician. We sincerely hope the profession will see to it that no other than such are hereafter admitted to its ranks.—*Buffalo Medical Journal.*

We copy the above from the *Buffalo Medical and Surgical Journal*, for the purpose of giving it our cordial and earnest approval. The establishment of an efficient Board of Medical Examiners in each State, by whom all candidates should be carefully and thoroughly examined, before they receive the degree of *Doctor of Medicine*, or can be admitted into the ranks of the profession, we have earnestly advocated, on all suitable occasions, since 1840. Some of the phraseology used by the editor of the *Buffalo Journal*, would lead the reader to infer, that this was the first time the subject had been introduced into the New York State Medical Society, and that the important proposition to separate the examining and licensing boards from the Medical Colleges, had originated with the Faculty of the Buffalo Medical College. Such an inference, however, would be entirely erroneous, as any one can ascertain by referring to the transactions of that Society from 1839 to 1845. It was in reference to this very subject, that the first call was issued for organizing the American Medical Association; and that organization will not have accomplished the most important object of its existence, until it shall have prompted the establishment of an independent and efficient Board of Examiners in each State, by which all candidates must be examined and approved, as the only means of getting access to the ranks of the Medical Profession.

In 1851, we published a small volume, entitled "History of Medical Education and Institutions in the United States," in which we gave our views concerning the whole subject of medical education without reserve, and, though we have been constantly connected with medical colleges since, we cannot now better express our sentiments concerning Boards of Examiners, than by quoting from that work as follows:—

"Hence, a thorough organization of the profession should be the first object of every advocate for medical improvement; and this organization should include—first, a board of censors, appointed by each local society, to examine all candidates for admission as students, in regard to their preliminary education; and no member of such societies should admit a student into his office without a certificate from said board, certifying that he is well versed in all the branches usually taught in our academical institutions, and possesses a good moral character. And second, one board in each State for the examination of all candidates for full admission into the ranks of the profession.

"This board should consist of, at least, seven members, appointed by the State Medical Society of each State; and, if advisable, also, one additional member, appointed by each regularly incorporated medical college; and the presence of two-thirds should constitute a quorum for the transaction of business. The board should meet at such time and place as the State Society should direct, and should not only require of each candidate the ordinary oral examination in the various branches of medical science, but also, the presentation of a written thesis on some medical subject, the detailed report of one or more cases, and the examination of at least one patient, in the presence of the board. The examination, and all the requirements, should be the same, whether the candidate possesses a diploma conferred by a medical college, or not. All who are found qualified should receive from the board diplomas, certifying to such qualifications, and entitling them to be recognized as members of the profession throughout the whole country; but without such diploma, no one should become eligible to membership in any society, or be countenanced or consulted with as practitioners. All fees derived from the granting of diplomas should be paid directly into the treasury of the State Society by which the examining board was appointed; and the members of such board should be paid a reasonable compensation for the time actually spent in the performance of their duties, as examiners, by the same society,—their bills, duly certified to, being presented to a regular meeting of the society, and audited in the same manner as provided for all other bills of expenditure.

"The advantages of such a plan, when carried into practical operation, are manifold:—

"1st. It would secure the practical adoption of a fair standard of preliminary education, which is as essential to the elevation and usefulness of the profession as is a knowledge of geography to the naturalist.

"2d. It would insure a more uniform, elevated, and practical standard of requirements for admission into the ranks of the profession; because the several State societies being directly connected with each other, through the medium of the National Association, would almost necessarily give to their several boards of censors similar rules and exactions.

"3d. It would place the responsibility of fixing the qualifications, and regulating the admission of members into the profession, where it rightfully and properly belongs, viz., with the mass of the profession itself.

"4th. It would tend greatly to elevate the character of medical teaching, both public and private, by making every teacher, and every faculty of teachers, depend entirely on their *merits* for success. Mere speculating associations, or sham corporations, would no longer be able to draw respectable classes of students by the cheapness of their diplomas, the liberality with which they are distributed, or the shortness of time required for college attendance; but the student, knowing that the success of his final examination must depend entirely on the amount and readiness of his medical knowledge, his mental discipline, and his moral character—uninfluenced by the fact that he has spent more or less time and money in this or that college, or the question, whether his approval or rejection will benefit or injure this or that institution—he will be governed, in his choice of teachers and colleges, by one simple question, viz.:—Where can I gain the *greatest amount* of sound medical knowledge for a given amount of time and money? With this question as the sole issue between the teacher or the college and the pupil, we should speedily have a radical change in the nature of the competition among our medical institutions. Instead of a struggle to outdo each other in placing the diploma in such a position, or on such terms, as to be most effectual in decoying students into their own halls, their competition would necessarily consist in an effort to excel in the number of their teachers, and the length and perfection of their courses, compared with their charges—a competition tending, necessarily, to progression and improvement, instead of the reverse, which now prevails. Indeed, nothing hangs as a heavier incubus on all attempts to improve our system of medical education, than this connection of licensing and teaching. It enables the merest shadow of a college, with its thirteen or fourteen weeks' lecture term, and perhaps two of these in one year, to issue diplomas just as large, couched in just as flourishing Latin, conferring just as many privileges, and, as the student well knows, having

just as much influence with the great mass of the community as the best, most thoroughly organized, and most rigid institution in the Union—hence, one of the strongest motives to real excellence in teaching is done away with, and the poorest college is given a decided advantage over the best.

"It is on this ground that I have, for several years, urged this separation, as a measure of real benefit to the colleges themselves, and as the only one which would ever enable the good institutions to reap the full benefit of their merits, in opposition to the badly managed and worthless. Indeed, the whole history of mankind, in all ages and countries, has not more clearly demonstrated the truth of any proposition than this—that every class of institutions, whether educational or industrial, not only flourish best, but are most progressive and improving in their condition, when left to depend entirely on their own merits for patronage and success.

"5th. It would insure both permanence and efficiency in the social organization. Those who study carefully the history of those medical societies and associations which have been formed, from time to time, in different States, will not fail to perceive that, with a very few exceptions, they have flourished for a few years only, and then maintained a nominal, rather than an active, state of existence. Thus, from 1810 to 1830, an active spirit of medical organization prevailed, resulting in the formation of State and County or District Societies, in a large majority of the States then existing in the Union. At first, many of these had Boards of Censors, whose fees, derived from the examination and licensing of students, not only defrayed their ordinary expenses, but, with a trifling iniatory tax, served to accumulate valuable society libraries, and the interest felt in their regular meetings continued unabated. But, as already shown in the historical part of our work, the college diploma rapidly superceded the State and county licenses, in all the States except, perhaps, Delaware and Louisiana, where a State license is still required by law.

"The societies being thus left to depend entirely on the voluntary contributions of the practitioner, who must tax himself to support the county society, spend his time, and tax himself again to pay traveling expenses, and to sustain the State organization, soon began to lose their interest, and fall into a state of inactivity. So true was this, that, though State and District Medical Societies had previously been formed in all the Eastern States—in New York, New Jersey, Delaware, Maryland, Mississippi, Alabama, Tennesse, Ohio, Indiana, and Michigan—

yet, in 1840, those in Massachusetts and New York were almost the only ones that maintained anything more than a mere nominal existence. And even in the latter State, out of its sixty counties, not more than sixteen or seventeen were represented in the meetings of the State Society. Since the successful organization of the American Medical Association, and the general interest which has been excited on the subject of medical education, a new and active spirit of social organization has been rekindled, Hence, during the last four years, most of the old societies have been re-animatod, and new ones have been formed in most of the States, where none existed before, such as Pennsylvania, South Carolina, Georgia, Illinois, Iowa, and Wisconsin. As proof of the present activity of this spirit, it is only necessary to mention, that over four hundred delegates were in attendance on each of the last two meetings of the American Medical Association, the one in Boston, the other in Cincinnati, and that many of these traveled more than a thousand miles, at their own expense, for that purpose. But does any one suppose that this spirit will continue year after year, under the influence of such personal sacrifices of time and money? It requires only an ordinary knowledge of human nature, and of the past history of medical associations, to see clearly that, without some collateral aid, some permanent resource for lightening the burthens and increasing the interest of such organizations, they will inevitably sink into a mere nominal existence, so soon as the exciting subjects which brought them into being cease to be the predominant topics of interest. But if each State organization could receive an annual income sufficient to defray its ordinary expenses, publish its transactions, and, perhaps, enable it to offer a premium for original essays, or defray the expense of original experimental investigations, it would not only insure the permanent prosperity of such organization, but it would prove one of the most powerful means of improving the whole literature and science of the profession.

"One of the primary objects I had in view when I presented the first series of resolutions in the New York State Medical Society, in 1844, advocating the separation of the licensing from the teaching power in onr colleges, and investing it in State censors, was to put into the possession of the State Societies such an income, for precisely such a purpose. That this was a leading object, will be seen by a reference to the resolutions themselves, as published in the transactions of that Society.

"It will be seen by reference to the report of the committee on medical education, contained in the Transactions of the American Medical Association for 1849, that nearly fourteen hundred were admitted into the profession during the year previous, by receiving diplomas from the several medical colleges in our country. These, at twenty dollars each, gave those colleges no less than twenty-eight thousand dollars. Now, suppose this sum was annually received by boards of examiners, one for each State, and turned directly into the treasury of the State Societies, every reader will see that it would afford an ample fund for paying the examining boards, publishing the annual transactions of the several societies, and enable each to powerfully encourage original investigations by premiums or experimental committees; and who can calculate the beneficial results that would accrue to the whole profession by thus rendering its organizations permanent and prosperous, and maintaining an active and ever-increasing spirit of scientific inquiry? It may be said that the loss of this fund would, by crippling the colleges, injure the cause of medical education as much as it would advance it, in the manner proposed; but if we remember that there are about four thousand five hundred students annually in attendance on the several colleges, and that a matriculation fee of five dollars for each, after deducting five hundred as third course students, would give no less than twenty thousand dollars, besides the entire receipts for lecture fees, we shall be satisfied that these institutions would have no cause to complain. And even if such a course should cause a school, here and there, to close its doors, it is by no means certain that either the profession or the community would suffer thereby."

Such were our sentiments years ago, and such they are still. We are glad the representatives of the Buffalo Medical College in the New State Medical Society have, again, brought the subject to the notice of the Profession. We wish the Medical Society of this, and all the other States, would give the subject a thorough consideration, and so instruct their delegates to the American Medical Association, as to effect a uniform plan of action throughout the whole country.

PRESIDENCY OF GUY'S HOSPITAL.—At a general court of the governors, held on Wednesday, the 16th ult., the Right Hon. Sir Lawrence Peel was unanimously elected president of the institution, in the room of the late Mr. Bonamy Dobree.

DEATH OF LEONIDAS M. LAWSON, M.D.

It is our sad duty once more to record the decease of one of our most prominent professional brothers. Dr. L. M. Lawson—late Prof. of the Theory and Practice of Medicine in the Medical College of Ohio—died at his residence in this city at one o'clock on Thursday morning, January 21st, at the early age of fifty-one.

Dr. Lawson was throughout his professional life identified with the interests of the profession of Cincinnati and medical teaching in our city, nevertheless he had occupied various positions of honor in neighboring cities at different periods of time. Very early in his career he was elected to a professorship in the medical department of Transylvania University at Lexington, Ky. Subsequently he held a professorship in Louisville for two or three winters, and for a single winter, (1859–60), he was Prof. of Clinical Medicine in the University of Louisiana at New Orleans. Still with these honorable appointments we find his heart regularly returning its best affections to this city of his early adoption. Here he has done his best work; here he has closed his labors.

In the spring of 1842, Dr. Lawson established the *Western Lancet*, and continued at its head, with various associates, until the winter of 1854–55, when his absence in Louisville made it necessary for him to withdraw from his editorial duties here. The subsequent merging of the *Medical Observer* with the *Lancet* as *Lancet and Observer*, of course renders this the regular successor of Dr. Lawson's founding in 1842. A present tribute of respect, therefore, comes from no one with more propriety, certainly with no greater sincerity and esteem for his professional industry and scholarship, and for his many social and domestic virtues, than from us.

Immediately after returning from New Orleans, Dr. Lawson brought out his work on Phthisis Pulmonalis, the labor of his life. We quote the following closing paragraph of the *critique* of the *British and Foreign Medico-Chirurgico Review* in its notice of Dr. Lawson's book, April, 1863:

"For acuteness of observation, for sober discrimination and sound judgment, and fair criticism of the writings of others, and especially of cotemporaries, and for the wide knowledge which it displays of the literature of his subject, we know few books superior to it. We bestow our praise the more readily, our author being an American, of Anglo-Saxon race, as his name implies, and one who, we trust, will, with all his right-minded

countrymen, still cherish a love of the old stock from which he sprang, abhorrent of the vulgar clamor sadly now prevailing against England, as if the American States, whether united or separated, Federal or Confederate, had not, with our county, a common interest, apart from the community of blood—that of language, of literature, and of laws."

Dr. Lawson continued in the regular performance of his professional and college duties up to the time of the Christmas holidays, though it was well known that his health was feeble, and that study and close attention to duty was telling upon him. He then went to the country for a brief relaxation, but returned after a few days to take his sick couch, from which he was destined never more to return to the labors of earth.

Dr. W. H. Taylor, who conducted the *post mortem* examination, has handed us the following notes, which will be read with interest.

Examination Thirty-Six Hours after Death.—Body emaciated, anæmic, slight *post mortem* rigidity. Extensive adhesions of the pleura were found, which in the upper part of the thorax were very firm, in the lower lateral portions of left were indications of recent inflammation. The lungs presented extensive vesicular emphysema predominating in the right. In the apex of right lung were several tubercular cavities each about the size of a hazel nut. Throughout the entire parenchyma of both lungs were small yellow tubercles in all stages, some hard, some softening, some cretified. The surrounding lung structure was engorged, and in some portions hepatized. The pericardium was healthy. It contained rather more than the usual amount of fluid which was tinged with blood. The walls of the heart were not more than half their usual thickness, and were so soft as to be easily penetrated by the finger. The small intestines were healthy. In the head of the colon were numerous small oval and round ulcers penetrating the mucus and muscular coats. The mucus membrane surrounding the ulcers was of a dark color. Several patches of chronic engorgement were found in the mucus membrane of the rectum. The liver was so soft as to tear by its own weight when but partially raised. The spleen was twice its usual size and very soft. The kidneys were about normal size, dark colored, very flabby, and the fascia propria easily detracted. On section the junction of the cortical and medullary portions was scarcely distinguishable. A considerable quantity of thin dark fluid with oil globules flowed from the cut surface. The calices were lined by a yellow deposit of cheesy consistence about a line in thickness, and contained a milky fluid.

The following is the tribute of the profession on this occasion:

IN MEMORIAM.—At a meeting of the Regular Medical Profession, held at the Medical College of Ohio, on Saturday, 23d inst., the following resolutions were, after appropriate remarks, unanimously adopted.

J. L. VATTIER, M.D., President.
J. P. WALKER, M.D., Secretary.

"*Whereas*, It has pleased God, in his good providence, to remove from our midst our professional brother, Dr. L. M. Lawson, late Professor of Theory and Practice in the Medical College of Ohio; therefore, be it

"*Resolved*, That in the death of Dr. Lawson, the profession of this city and whole country, has lost an accomplished member, and one wholly devoted to scientific pursuits.

"*Resolved, further*, That in his death the profession has lost a member whose labors in behalf of medical science have given additional luster to the American profession of medicine at home and abroad.

"*Resolved*, That in him we lose the well-bred gentleman, of amiable manners, wholly directed during his entire life, to the advancement of his profession, and the welfare of its members.

"*Resolved*, That a copy of these resolutions be sent to the family of the deceased, and published in the daily papers, and in the Cincinnati *Lancet and Observer*."

The funeral took place from the First Presbyterian Church of this city, the discourse being delivered by the Rev. Mr. Worrall, of Covington, and the remains were followed to the cemetery by the Freemasons, of which body he was a Knight Templar, by the Profession, and the students of the Medical College of Ohio. His memory and teachings will long remain with the profession of this Great Valley. His body rests in the tomb 'till the beauty of the Resurrection morn.—*Cincinnati Lancet and Observer.*

FRENCH AND ENGLISH ARMY HOSPITALS.—Dr. H. B. Franklyn, Surgeon First Battalion 10th Foot, in a letter to the *Times*, states that, with respect to the special diseases which form the bulk of admissions to the English army hospitals, the French are more fortunate than ourselves. In 1858, the admissions to the hospitals in Paris were 24 per 1,000 men, while at Aldershot they were 411 per 1,000, and at Woolwich 512 per 1,000. Sometimes it fell in Paris to 16 per 1,000. In Marseilles, the worst French garrison, it reached 113 per 1,000.

Azulene of Patchouly.—Those who took an interest in the exhibition of 1862 know that Mr. Septimus Piesse was one of its most active Jurors in Class 4. While examining the exhibits of M. Mero, of Grasse, an apparently anomalous substance was shown to the jurors: this body was called "chrystalized patchouly." Now, chrystalized anise and crystalized otto of roses are the normal state of these bodies, but with patchouly oil it is not so, and the jurors naturally viewed crystalized patchouly with some suspicion. Portions of it were given to Mr. Piesse for chemical examination. The result proved that the crystals were a true camphor of patchouly of the atomic composition of valerole. M. Mero got his medal. The chemical examination of otto of patchouly was continued by Mr. Piesse, and the result has been the discovery of a remarkable blue body, termed by him *azulene*, from its sky-blue tint and from its sky-like optical properties. Further study has established the fact that azulene is not peculiar to patchouly, but exists in several essential oils, to the presence of which, in fact, they own their color. Blue oils, such as from the wild chamomile, contain pure azulene; green oils, such as wormwood, contain azulene and a considerable portion of yellow resin, thus disguising its presence. Sir David Brewster has pure azulene under optical examination. Several years past he made experiments in the same direction. He says: "Two blue oils, Matricaria chamomilia and Achillea millefolium, which owe their color to the presence of azulene, differ from all the bodies which I have yet examined. Between the two lines A and B of Farnnhofer's map of the spectrum, there are two groups of lines, and the two oils absorb the light in these portions more powerfully than in the portions adjacent to them. No other fluid or solid on which I have made experiment acts in a similar manner; but, what is very remarkable, the earth's atmosphere exercises a similar action when the sun's light passes through its greatest thickness at sunrise and sunset." In a paper by Mr. Piesse, read before the Chemical Society, describing azulene, the author stated that blue otto of chamomile yields one per cent., otto of wormwood three, and otto of patchouly six per cent. of the new body. The patchouly plant is already commercially cultivated at Penang, and any quality can be grown in Ceylon. Patchouly is said to enter into the composition of Indian or Chinese ink. Mr. Piesse thinks that, on account of the general presence of azulene in volatile oils (to which, in a measure, it gives their color,) it plays some special part in connexion with these odoriferous bodies, and he hopes soon to elicit some more facts relative to it.

On Topical Injections of Strychnine in Cases of Paralysis of the Facial Nerve.—M. Courty, Professor of Surgery at the Faculty of Montpelier, having succeeded in controlling severe neuralgic pains by injections of strychnine, tried them likewise in paralysis of the facial nerve, as well as loss of the power of movement in other parts. In different cases, of paralysis, and especially in chronic cases, the result was not favorable. The author succeeded, however, in a case of paraplegia; the patient, a woman aged forty-five, having been thus paralyzed for twelve months. Many remedies had been tried; but a few injections of strychnine on a level with the inferior extremity of the spinal marrow sufficed for the cure. Success was also obtained in three cases of recent facial paralysis. The first patient was a man of fifty-six; the second, a lady of twenty-five; and the third, a young lady of twenty-two. They were all in the early stage of the disease; and the strength of the solution varied from one in a hundred to one in seventy. A few drops (from eight to sixteen) were injected along the course of the facial nerve, between the stylo-mastoid foramen and the neck of the lower maxilla. The injection was repeated every second or third day. All the muscles of the face recovered the faculty of movement after from three to six injections, in about ten days or a fortnight. The author states that no relapses have taken place in these cases.

New American Pharmacopœia.—The January number of the *London Lancet* contains a very appreciative review of the last edition of our Pharmacopœia. The notice concludes with the following paragraph:

"Upon the whole, we consider the New United States Pharmacopœia a work highly creditable to its compilers and the profession. It bears the impress of an honest and earnest endeavor to advance the science and art of healing, to render available to all the experience and information obtainable from every quarter, and without favor or prejudice to adopt whatever may be practically useful from any source."

Gossip—New Mode of Preparing Beef Tea.—A medical friend had occasion not long since to order "beef tea" for a patient, and at a subsequent visit happened to inquire of the nurse if she understood the art of making beef tea correctly: Oh, yes, she replied—but for fear she might be mistaken she had consulted another lady friend learned in the duties of the sick room; and between us, said she, we succeeded beautifully. I

took a nice piece of beef—cut it in very fine pieces—put them in a bottle, corked it carefully, and then put it in a kettle of water and boiled for two hours: we then took out the bottle and fed the patient a spoonful of the water from the kettle every two hours!

Health in the British Army.—In the English Infantry the average number of sick is about 50 per 1000 men; in the English cavalry a little less; in the Royal artillery a little more; and the military train and depot battalions, at most 7,000 men, furnish about 1400 admissions per annum, on account of these two corps being chiefly composed of old and young soldiers. Striking an average in the British army the number of sick is nearly 55 per 1000 of strength; in the French army 45; in the Prussian 47; and in the Austrian 48. The average time in hospital is 17 to 20 or 21 days; in the French army it is 16 days; in the Prussian army it is 16 days; and in the Austrian army it is 17 days.

Scanzoni on Chronic Metritis.—This eminent physician has lately published a work on this subject, and dedicated to the Obstetrical Society of London. The author considers that one of the causes is *acute* metritis, the latter being due, among other causes, to excessive sexual intercourse. On this head Scanzoni finds great fault with the custom now prevalent in Germany, and imported from England, of traveling immediately after the wedding. He considers that Bennet, in England, and Becquerel, in France, are wrong in their views as to the pathology of chronic metritis, when these authors ascribe the developement of different uterine affections to ulceration of the the cervix uteri. Scanzoni is by no means satisfied with the uterine sound; he warmly condemns its abuse, and considers the case very rare in which its use, in a diagnostic point of view, is indispensable.

Proportion of Births to Population.—The proportion of births to population in various European countries is given in a blue-book of "Statistical Tables relating to Foreign Countries." In England and Wales the annual births are 1 in 28 persons; 1 in 30 in Belgium, Holland, and Norway; 1 in 32 in Sweden; 1 in 33 in Hanover, the Hans Towns, and Denmark; 1 in 34 in Greece; 1 in 38 in France; 1 in 26 in Wurtemburg; 1 in 25 in Russia; 1 in 24 in Austria, Saxony, and Prussia; and in Poland, 1 in 23.

ALLEGED POISONING BY STRYCHNINE.—A crime similar to that committed by the notorious Palmer is the subject of judicial investigation in Paris. A physician insured the life of his wife for 500,000f. (£20,000), and shortly after the payment of the first premium the young woman died. The suddenness of the death, and the large amount for which the life was insured, created suspicion in the minds of the directors of the insurance company, and they determined to make the case known to the highest law authority. An investigation was commenced under the direction of the Imperial Attorney-General, in consequence of which the physician was arrested and committed to the prison of Mazas.

NEW VACCINATION ACT.—On the 1st proximo, an act of Parliament will come into force making it compulsory in Ireland to have all children born after the 1st of January vaccinated within six months, under a penalty of 10*s*.

TWO NEW CASES OF SYPHILIS CONVEYED BY VACCINATION.—Besides the case of M. Devergie, lately mentioned, we have now one alluded to by M. Chassaignac before the Surgical Society of Paris; and another observed by M. Herard, and brought before the Medical Society of Hospitals. The parents, in both cases, have not suffered from syphilis, and the specific ulcers became apparent in the children at the spot where vaccination had been performed. The symptoms of syphilis were verified by the members of both the above-mentioned Societies.

THE QUEEN AND THE TOBACCO QUESTION.—The use of tobacco within the precincts of Windsor Castle has been prohibited by express command of Her Majesty the Queen.

CHICAGO MEDICAL COLLEGE.

Medical Department of Lind University.

The regular Annual Lecture Term in this Institution will commence on the second Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

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H. G. SPAFFORD, Professor of Medical Jurisprudence.
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FEES.

For the Winter Term, admitting to all the Lectures in the College,	$50.00
Graduation Fee,	20.00
Matriculation Fee,	5.00
Dissecting Ticket,	5.00
Hospital Ticket,	6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated students of the College. Boarding can be had for $2.50 to $3.50 per week. For further information, inquire of

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